APPENDICIES

Section

A - Analysis Of Water Quality Data

B - Water Quality Sampling Of Work

C - Water Quality Laboratory Analysis

D - PAC Meeting #1

E - Water Quality Subcomm Meeting #1

F - PAC Meeting #2

G - Focus Group Summaries

H - Water Quality Subcommittee #2

I - PAC Meeting #3

J - Regional Projects Subcommittee Meeting

K - PAC Meeting #4

L - Public Forum

M - Solutions Subcommittee

N - Stakeholders Invited

Appendix A
Rio Hondo Watershed Management Plan
Analysis of Water Quality Data from the Rio Hondo Watershed
By Noel Davis, Chambers Group Inc.

1.0 INTRODUCTION

This report presents an analysis of recent and historical water quality data in the Rio Hondo watershed. The Rio Hondo is a major tributary to the Los Angeles River in eastern Los Angeles County. The watershed encompasses 142 square miles that includes most of the San Gabriel Valley from Pasadena in the west, to Duarte in the east, and then south to the City of South Gate. The six major Rio Hondo tributaries are the Alhambra, Rubio, Eaton, Arcadia, Santa Anita and Sawpit Washes .

The Rio Hondo watershed has been listed as an impaired waterbody under Section 303(d) of the Clean Water Act. Section 303(d) requires that states develop a list of waterbodies that need additional work beyond existing controls to achieve or maintain water quality standards. The additional work includes the establishment of total maximum daily loads of pollutants that have impaired the waterbody. Table 1-1 shows the proposed updated 303(d) list for the Rio Hondo and its tributaries. This list was approved by the State Water Resources Control Board on February 4, 2003, and approved by the U.S. Environmental Protection Agency July 2003.

Table 1-1
303(d) Listing*

Pollutant/Stressor	Potential Sources	TMDL Priority	Estimated Size Affected	Proposed TMDL Completion
Legg Lake				
Ammonia	Nonpoint/	Medium	25 acres	-
Copper	Nonpoint/	Medium	25 acres	-
Lead	Nonpoint/	Medium	25 acres	-
Odors	Nonpoint/	Medium	25 acres	-
PH	Nonpoint/	Medium	25 acres	-
Trash	Nonpoint/	Low	25 acres	-
Monrovia Canyon Creek				
Lead	Nonpoint/	High	3.4 miles	2003/4
Peck Road Park Lake				
Chlordane (tissue)	Nonpoint	Low	103 acres	-
DDT (tissue)	Nonpoint	Low	103 acres	-
Lead	Nonpoint	Low	103 acres	-
Odors	Nonpoint	Low	103 acres	2010/11
Organic Enrichment / Low Dissolved Oxygen	Nonpoint	Low	103 acres	2010/11
Trash				2010/11

Rio Hondo Reach 1 (Confluence. LA River to Santa Ana Fwy.)				
Copper	Nonpoint/Point Source	High	4.6 miles	2003/4
High Coliform Count	Nonpoint/Point Source	High	4.6 miles	2001/2
Lead	Nonpoint/Point Source	High	4.6 miles	2003
pH	Nonpoint/Point Source	High	4.6 miles	2001/2
Trash	Nonpoint/Point Source	Low	4.6 miles	2001
Zinc	Nonpoint/Point Source	High	4.6 miles	2003
Rio Hondo Reach 2 (At Spreading Grounds)				
High Coliform Count	Nonpoint/Point Source	High	4.9 miles	2001/2

*Derived from two sources –

(1) 2002 CWA Section 303 (d) List of Water Quality Limited Segment – Los Angeles Regional Water Quality Control Board, Approved by USEPA: July 2003

(2) Los Angeles River Watershed 303(d) listed Waters; November 2003

This report presents and analyzes the results of a recent dry weather sampling event in the Rio Hondo watershed. The report also summarizes and analyzes a variety of historical water quality data in the watershed. Finally, the report compares the results of the recent sampling event to the historic data. For both data sets, water quality data are compared to objectives in the Water Quality Control Plan Los Angeles Region ((LARWQCB 1994), the California Toxics Rule (USEPA 2000), and water quality thresholds known to have adverse effects (USEPA 1986).

2.0 AUGUST 2004 DRY WEATHER SAMPLING EVENT

2.1 Methods

The Los Angeles County Department of Public Works sampled water constituents in the Rio Hondo watershed on August 12, 2003. One station, Sawpit Wash at Buena Vista Channel (Station 8a), was sampled on August 18, because the station was flooded on August 12. Dry weather sampling was conducted because it is the more common annual condition. Sampling procedures followed those described in the Quality Assurance/Quality Control Plan from the *Los Angeles County 2001-2002 Storm Water Quality Monitoring Report.*

Water samples were collected at 10 locations (Table 2-1). The downstream Rio Hondo sampling site is just above its confluence with the Los Angeles River. The second site is on the Rio Hondo at Beverly Boulevard, above the Rio Hondo Spreading Grounds. The next six sites are at the confluence of the six major tributaries to the Rio Hondo, right before they flow into the main channel. The upper Eaton Canyon site, at creek crossing bridge, has been proposed as a "reference site" for comparing natural and urban watershed influences.

Table 2-1
August 2003 Sampling Sites

No.	Location
1	Rio Hondo at Los Angeles River Confluence
2	Rio Hondo (DPW automated sampling station @ Beverly Blvd.)
3	Alhambra Wash (above the confluence w/Rio Hondo)
4	Rubio Wash (above the confluence w/Rio Hondo)
5	Eaton Wash (above the confluence w/Rio Hondo)
6	Arcadia Wash (above the confluence w/Rio Hondo)
7	Santa Anita Wash (at Peck Road Conservation Park)
8	Sawpit Wash (at Peck Road Conservation Park)
8a	Sawpit Wash (at Buena Vista Channel)
9	Eaton Wash (Eaton Canyon ; bridge crossing off Pinecrest Drive)

Water samples were analyzed for fourteen parameters at the County of Los Angeles Department of Agricultural Commissioner/Weights and Measures laboratory. Table 2-2 lists those parameters, the analytical method, and the detection limits.

Table 2-2
Water Quality Parameters, Analytical Methods and Detection Limits

Analyte	Method	Detection Limits
Nitrate – N	Standard Method B429	0.1 mg/L
Nitrite – N	Standard Method B429	0.1 mg/L
Ammonia – N	EPA 350.3	0.1 mg/L
Hardness	EPA 310.2	2 mg/L
PH	EPA 150.1	0-14
Turbidity	EPA 180.1	0.1 NTU
Conductivity	EPA 120.1	1 µmhos/cm
DO	SM 4500-OG	1 mg/L
Copper Dissolved	EPA 200.8	0.5 µg/L
Copper Total	EPA 200.8	0.5 µg/L
Lead Dissolved	EPA 200.8	0.5 µg/L
Lead Total	EPA 200.8	0.5 µg/L
Zinc Dissolved	EPA 200.8	1.0 µg/L
Zinc Total	EPA 200.8	1.0 µg/L
Total Coliform	Standard Methods, 18th ed. 9221	20 mpn/100 mL
Fecal Coliform	Standard Methods, 18th ed. 9221	20 mpn/100 mL
E. Coli	Quanti-Tray Method	10 mpn/100 mL

2.1 Results of Sampling Event

2.1.1 Nutrients

In all samples, nitrate and nitrite were below the limits of 10 milligrams per liter (mg/l) and 1 mg/l respectively specified in the Los Angeles Region Basin Plan (LARWQCB 1994). Ammonia was below detection limits in all samples except in Sawpit Wash at the Buena Vista Channel (Station 8a), where it was 0.41 mg/l. The lowest nitrogen levels were at Santa Anita Wash at Peck Road Park (Station 7), at Sawpit Wash at Peck Road Park (Station 8) and at Eaton Wash above the bridge crossing off Pinecrest Drive (Station 9). The highest nitrate measurements were in the duplicate Alhambra Wash sample (Station 3 dup), Rubio Wash (Station 4), and Eaton Wash above the confluence with Rio Hondo (Station 5). The highest nitrite measurements were in Rubio Wash (Station 4) and Rio Hondo at the Los Angeles River confluence (Station 1).

2.1.2 Hardness

Water hardness is caused by metallic ions dissolved in water (USEPA 1986). In fresh water these are primarily calcium and magnesium although other metals such as iron, strontium and manganese may contribute. Hardness commonly is reported as an equivalent concentration of calcium carbonate. No applicable water quality standards exist for hardness. High concentrations of calcium carbonate may reduce the toxicity of heavy metals (USEPA 1986). Hardness in the recent Rio Hondo watershed samples ranged from 110 mg/l at Santa Anita Wash (Station 7) to 280 mg/l in Arcadia Wash (Station 6). Water with calcium carbonate concentrations in this range would be considered moderately hard to hard (USEPA 1986).

2.1.3 pH

The hydrogen ion activity of water (pH) is measured on a logarithmic scale from 0 to 14. A pH of 7 is neutral, less than 7 is acidic, and greater than 7 is basic. The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) specifies that the pH of inland surface waters should not be depressed below 6.5 or raised above 8.5. The recent pH measurements in the Rio Hondo watershed exceeded the Los Angeles Region Basin Plan standard of 8.5 in all samples except Rubio Wash (Station 4), Sawpit Wash (Stations 8 and 8a), Eaton Wash above the bridge crossing off Pinecrest Drive (Station 9), and the Alhambra Wash duplicate sample (Station 3 Dup). The highest pH measurement was 9.79 in the Rio Hondo at Beverly Blvd (Station 2). None of the water samples taken in August, 2003, had a pH below the standard of 6.5. Legg Lake and the Rio Hondo from its confluence with the Los Angeles River to the Santa Ana Freeway are on the 303(d) list for pH.

2.1.4 Turbidity

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter and microscopic organisms (LARWQCB 1994). The only numerical standard the Los Angeles Region Basin Plan sets for turbidity is 5 nephlometric turbidity units (NTU) for drinking water. Municipal water supply is a potential

beneficial use throughout the Rio Hondo watershed (LARWQCB 1994), but is an existing beneficial use only in Santa Anita Canyon Creek and an intermittent beneficial use in Sawpit Wash and Monrovia Canyon Creek. In general the August, 2003, turbidity measurements were very low. Only two measurements exceeded the drinking water standard of 5 NTU These were a measurement of 11.4 NTU in Santa Anita Wash at Peck Road Park (Station 7) and a measurement of 8.52 NTU in Sawpit Wash at Peck Road (Station 8).

2.1.5 Conductivity

Conductivity is an indirect measurement of the amount of dissolved solids in the water. Water with high dissolved mineral content has a high conductivity. The Los Angeles Region Basin Plan does not set a numerical objective for conductivity. Conductivity during the August 2003 survey ranged from 359 micromhos per centimeter (umhos/cm) in Sawpit Wash at Peck Road Conservation Park (Station 8) to 1144 umhos/cm in Arcadia Wash (Station 6). These conductivity measurements indicate a somewhat high dissolved solids concentration in the Rio Hondo watershed.

2.1.6 Dissolved Oxygen

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) specifies that at a minimum, the mean annual dissolved oxygen concentrations of all waters shall be greater than 7 milligrams per liter (mg/l) and no single determination shall be less than 5 mg/l. Depression of dissolved oxygen can lead to anaerobic conditions resulting in odors or, in extreme cases, in fish kills. All dissolved oxygen measurements made in the Rio Hondo watershed in August, 2003, were above 7 mg/l. Dissolved oxygen concentrations ranged from 8.12 mg/l in Sawpit Wash at the Buena Vista Channel (Station 8a) and 17.12 mg/l in the Rio Hondo at Beverly Blvd. (Station 2). The very high (> 10 mg/l) dissolved oxygen measurements at Stations 1 through 6 are likely related to photosynthesis by algae.

2.1.7 Metals

Three metals (copper, lead and zinc) were measured in August, 2003. The California Toxics Rule (USEPA 2000) sets a standard of 13 micrograms per liter (ug/l) for copper to protect freshwater aquatic life. As the CTR was developed for point sources and does not apply to stormwater, it is used here as a point of reference. A dissolved copper concentration of 13.7 mg/l was recorded in Sawpit Wash at the Buena Vista Channel (Station 8a), a dissolved copper concentration of 15.5 mg/l was recorded in Arcadia Wash (Station 6) and a dissolved copper concentration of 32 mg/l was recorded in Santa Anita Wash (Station 7). Within the Rio Hondo watershed, Legg Lake and the Rio Hondo from the Los Angeles River to the Santa Ana Freeway are on the 303(d) list for copper. Legg Lake, Monrovia Canyon Creek, Peck Road Park Lake and the Rio Hondo between the Los Angeles River and the Santa Ana Freeway also are on the 303(d) list for lead. However, all dissolved lead concentrations in water samples collected in August 2003 were well below the Califonia Toxics Rule limit of 65 ug/l. The highest lead measurement was 15.7 ug/l in Sawpit Wash at Peck Road Park (Station 8).

2.1.8 Bacteria

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) states that for areas designated for non-water contact recreation, the fecal coliform concentration shall not exceed 4000 most probable number (MPN)/100 milliliters (ml) in more than 10 percent of the samples in a 10 day period. Most of the Rio Hondo watershed has non-water contact recreation as either an existing or intermittent beneficial use. The fecal coliform standard for water contact recreation is 400MPN/100ml in not more than 10 percent of the samples in a 30-day period. The Rio Hondo watershed does have some intermittent water contact recreation as well as some existing water contact recreation in the upper reaches of some of the tributaries. In August, 2003, water samples exceeded the standard for non-water contact recreation at six of the ten stations. The stations that did not exceed this standard were the two stations in the Rio Hondo itself (Stations 1 and 2), Santa Anita Wash at Peck Road Park (Station 7), and Sawpit Wash at Peck Road Park (Station 8). In addition, the Alhambra Wash duplicate sample had fecal coliform bacteria concentrations below detection limits even though the first sample at this station had a very high concentration (50,000MPN/100ml). The Santa Anita Wash sample (Station 7) had a fecal coliform concentration of 1100MPN/100ml, which did not exceed the standard for non-water contact recreation but did exceed the standard for water contact recreation. Water contact recreation is a potential but not existing beneficial use for lower Santa Anita Wash.

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) does not have a standard for total coliform bacteria except for shellfish harvesting (a beneficial use that does not occur in the Rio Hondo watershed.). However, California Assembly Bill 411 sets a single sample total coliform standard of 10000 MPN/100 ml. for public water-contact sports areas. The Rio Hondo watershed does not have any areas that are designated as public water contact recreation areas. Therefore, the AB 411 standard does not technically apply to the Rio Hondo watershed but is used as a standard to identify high total coliform levels. This standard for total coliform was exceeded at seven of the ten stations sampled in August 2003. Stations with high total coliform concentrations were the same as those with high fecal coliform concentrations and again the duplicate sample for Alhambra Wash (Station 3) had very low coliform levels even though the first sample at this station had coliform levels that exceeded criteria.

No standard exists for *E. coli* bacteria. The concentrations of *E.coli* were high at the stations that had high concentrations of total and fecal coliform.

In general, the Rio Hondo watershed had high bacteria levels in August, 2003. The only locations where bacteria concentrations were not elevated were the two stations in the Rio Hondo itself (Stations 1 and 2) and Sawpit Wash at Peck Road Park (Station 8). The highest bacteria concentrations were in Eaton Wash above the bridge crossing off Pinecrest Road (Station 9). His station was designed as a reference station and had the lowest concentrations of other contaminants. The high bacteria concentrations were probably because the samples were taken immediately downstream of an area that is used as a "swimming hole."

4.0 HISTORICAL WATER QUALITY DATA

Water quality data in the Rio Hondo Watershed from a variety of sources were analyzed. Data on various water quality parameters were collected by the Los Angeles County Department of Public Works, the Los Angeles County Sanitation District, the Los Angeles Regional Water Quality Control Board and the United States Geological Services Department of Water Resources between 1955 and 2000. At various times and various locations, data were collected on conventional parameters, salts, nutrients, bacteria, metals, and organics. No specific details regarding the sampling or analytical methods are available. This report focuses on contaminants and water column parameters known to be toxic or to have adverse effects.

4.1. Conventional Parameters

Table 4-1 summarizes the range of measurements of conventional parameters in the Rio Hondo Watershed.

Table 4-1
Range of Historical Measurements of Conventional Parameters

	Low Value	High Value
Dissolved Oxygen	0	23.6 mg/l
PH	3.2	10.7
Chlorine	<0.1 mg/l	0.2 mg/l
Phenols	ND	ND
MBAS	0.1 mg/l	0.4 mg/l
Cyanide	ND	0.022 mg/l
Flow	6 CFS	12,430 CFS
Temperature	52^0 F	84^0 F
Biochemical Oxygen Demand	13.9 mg/l	71.3 mg/l
Chemical Oxygen Demand	ND	149 mg/l
Oil and Grease	ND	4.1 mg/l
Settleable Solids	0	52 mg/l
Suspended Solids	ND	700 mg/l
Total Organic Carbon	5.3 mg/l	60.6 mg/l
Turbidity	0	200 mg/l

ND = below detection limits

4.1.1. Dissolved Oxygen

Historical dissolved oxygen measurements in the Rio Hondo watershed range from 0 to 23.6 mg/l. The low value of 0 mg/l was recorded at the Rio Hondo Spreading Grounds in September,1971. Other very low dissolved oxygen measurements include measurements of 0.6 mg/l in 1978 and 0.8 mg/l in 1968 in the Rio Hondo near Montebello and 0.2 mg/l in the Rio Hondo at the Pomona Freeway in September 1971. Although dissolved oxygen measurements in the Rio Hondo are usually over 5 mg/l, measurements below this threshold have been recorded

on many occasions. Recent low dissolved oxygen measurements (below 5 mg/l), including one reading of 3.6 mg/l on January 17, 1997, have been reported in the Rio Hondo Flood Control Channel 1000 feet upstream from San Gabriel Blvd. Peck Road Park Lake is on the 303(d) list for low dissolved oxygen.

4.1.2. pH

Historical measurements of pH in the Rio Hondo watershed range from a low of 3.2 to a high of 10.7. Most pH measurements were between 6.5 and 8.5. Measurements at the high end of the specified range were more common than measurements below 6.5. The high value of 10.7 was recorded in the Rio Hondo Spreading Grounds on December 12, 1992. High pH measurements above the standard of 8.5 have been found in various locations on the Rio Hondo on numerous occasions and in Eaton Wash north of Broadway (9.1) in May, 1992.

The very low pH value of 3.2 was recorded in the Rio Hondo at the Pomona Freeway on May 21, 1968. A pH of 5.3 was recorded in the Rio Hondo Spreading Grounds on February 9, 1976, and a pH of 6.4 was recorded there on June 17, 1970. A value of 6.1 was recorded at this location on February 17, 1971. A value of 6.2 was recorded in the Rio Hondo near Downey on that same date. All other pH measurements were above 6.5. Legg Lake and Reach 1 of Rio Hondo from the Los Angeles River to the Santa Ana Freeway is on the Clean Water Act Section 303(d) list for pH.

4.1.3. Chlorine

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) specifies that chlorine shall not be present in surface water discharges at concentrations that exceed 0.1 mg/l. All historical measurements of chlorine in the Rio Hondo watershed were less than 0.1 mg/l with the exception of three measurements of 0.2 mg/l in the Rio Hondo Flood Control Channel 1000 feet upstream of San Gabriel Blvd. on April 10, May 23, and May 31, 1996.

4.1.4. Phenols

The California Toxics Rule (USEPA 2000) has a threshold of 21 mg/l for phenols. Historical phenol measurements in the Rio Hondo Watershed were all below detection limits or below practical quantification limits.

4.1.5. Methylene Blue Activated Substances (MBAS)

Methylene Blue Activated Substances (MBAS) tests for the presence of detergents in water. Positive results can indicate the presence of domestic wastewater. The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) specifies that waters shall not have an MBAS concentration greater than 0.5 mg/l. Historical measurements of MBAS in the Rio Hondo watershed range from 0.1 to 0.4 mg/l and thus do not exceed the threshold in the Los Angeles Basin Plan.

4.1.6. Other Conventional Parameters

Historical measurements are also available for cyanide, flow, biochemical oxygen demand, chemical oxygen demand, oil and grease, settleable solids, suspended solids, total organic carbon, turbidity, and temperature. Numerical objectives have not been set for these parameters. Historical high and low values are shown in Table 4-1.

4.2. Salts

Table 4-2 shows the range of historical salt measurements in the Rio Hondo watershed.

Table 4- 2
Range of Historical Measurements of Salts

	Low Value	High Value
Alkalinity	7 mg/l	371 mg/l
Chloride	1 mg/l	1220 mg/l
Sulfate	1.1 mg/l	2390 mg/l
Total Dissolved Solids (TDS)	2.5 mg/l	2684 mg/l
Bicarbonate	32.1 mg/l	35 mg/l
Boron	ND	7 mg/l
Calcium	4 mg/l	2410 mg/l
Fluoride	0	629 mg/l
Magnesium	1 mg/l	360 mg/l
Potassium	2 mg/l	325 mg/l
Sodium	4 mg/l	7100 mg/l
Specific Conductance	108 umhos/cm	1848 umhos/cm

ND = below detection limits

4.2.1. Alkalinity

Alkalinity is a measure of the buffering capacity of the water. The Environmental Protection Agency recommends an alkalinity of 20 mg/l or more to protect freshwater aquatic life (USEPA 1986). Historical alkalinity measurements in the Rio Hondo watershed range from 7 mg/l to 371 mg/l. Only two measurements below the threshold of 20 mg/l have been recorded. The low alkalinity of 7 mg/l was recorded in the Rio Hondo near the Pomona Freeway on February 17, 1971. An alkalinity of 15 mg/l was recorded in the Rio Hondo near Montebello on March 6, 1975.

4.2.2. Chloride

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets a limit of 150 mg/l for chloride concentrations in the Rio Hondo above the Santa Ana Freeway. Historical measurements of chloride range from 1 to 1220 mg/l. The high chloride concentration of 1220 mg/l was recorded in the Rio Hondo near Downey on April 1, 1976. A chloride concentration of 922 mg/l was recorded in Rio Hondo near Montebello in Montebello Hills on April 28, 1967. Other historical measurements of chloride concentrations that exceeded 150 mg/l have been

made at the previous two locations and in the Rio Hondo Spreading Grounds and at Whittier Narrows Dam.

4.2.3. Sulfate

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets a limit of 300 mg/l for sulfate concentrations in the Rio Hondo above the Santa Ana Freeway. Historical measurements of sulfate in the Rio Hondo Watershed range from 1.1 to 2390 mg/l. The historic high sulfate value of 2390 mg/l was recorded at the Rio Hondo Spreading Grounds on August 2, 1971. Two other measurements just above the 300 mg/l threshold were recorded at this location. The second highest sulfate measurement of 2050 mg/l was recorded in the Rio Hondo near Montebello in Montebello Hills on November 21 1975. There were numerous other sulfate measurements that exceeded 300 mg/l at this station. Other locations where sulfate concentrations sometimes exceeded 300 mg/l were Whittier Narrows Dam (310 to 473 mg/l), the Rio Hondo near the Pomona Freeway (301 to 407 mg/l) and the Rio Hondo near Downey (301 to 810 mg/l). Most historical sulfate concentrations were below 300 mg/l.

4.2.4. Total Dissolved Solids (TDS)

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets a limit of 750 mg/l for total dissolved solids (TDS) in the Rio Hondo above the Santa Ana Freeway. Historical TDS measurements in the Rio Hondo watershed range from 2.5 to 2684 mg/l. The highest measurement of 2684 mg/l was recorded in the Rio Hondo near Downey on April 1, 1976. Numerous other measurements of TDS in excess of 750 mg/l also have been recorded at various locations and times in the Rio Hondo watershed.

4.2.5. Other Salts

Other salts for which historical measurements in the Rio Hondo watershed are available include bicarbonate, boron, calcium, fluoride, magnesium, potassium, sodium, and specific conductance. There are no applicable numerical thresholds for these parameters. Table 4-2 summarizes the historical high and low measurements for each of these parameters in the Rio Hondo Watershed.

4.3. Nutrients

Table 4-3 shows the range of historical nutrient measurements in the Rio Hondo watershed. Nutrients are inorganic compounds required for plant growth. The primary nutrients are nitrogen and phosphorous. Excessive nutrients can lead to excessive plant growth and, eventually, excessive oxygen demand. Nitrogen in the form of ammonia can be toxic at high concentrations

Table 4-3
Range of Historical Measurements of Nutrients in the Rio Hondo Watershed

	Low Value	High Value
Nitrate nitrogen	ND	82.6 mg/l
Nitrite nitrogen	ND	1.2 mg/l
Ammonia nitrogen	ND	10.7 mg/l
Kjeldahl nitrogen	1 mg/l	7.4 mg/l
Total organic nitrogen	0.2 mg/l	7.7 mg/l
Total phosphorus	ND	0.9 mg/l
Phosphate	ND	2.5 mg/l

ND = below detection limits

4.3.1. Nitrate Nitrogen

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets a limit of 10 mg/l for nitrogen in the form of nitrate. Historical nitrate measurements in the Rio Hondo watershed range from undetectable to 82.6 mg/l. The high value of 82.6 mg/l was recorded at the Rio Hondo Spreading Grounds on April 1, 1977. Numerous other measurements of nitrate at a concentration greater than 10 mg/l have been recorded at various locations and various times in the Rio Hondo watershed.

4.3.2. Nitrite Nitrogen

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets a limit of 1 mg/l for nitrogen in the form of nitrite. Historical nitrite measurements in the Rio Hondo watershed range from undetectable to 1.2 mg/l. Three nitrite measurements of 1.2 mg/l were recorded in the Rio Hondo Flood Control Channel 1000 feet upstream from San Gabriel Blvd. on November 27, 1996, February 22, 1999, and February 29, 2000. All other historical nitrite measurements in the Rio Hondo watershed were at or below 1 mg/l.

4.3. Ammonia Nitrogen

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) sets limits of ammonia based on temperature and pH. Historical ammonia measurements in the Rio Hondo watershed range from undetectable to 10.7 mg/l. It was not possible to determine the pH and temperature measurements at these dates and locations. However, Basin Plan ammonia limits for the pH and temperature range in the Rio Hondo run from about 2.3 to 23 mg/l. No ammonia concentrations over 23 mg/l were recorded. Ammonia concentrations over 2.3 mg/l were recorded on 16 occasions at various locations.

4.4. Other Nutrients

Historical nutrient measurements in the Rio Hondo watershed are also available for Kjeldahl nitrogen, total organic nitrogen, phosphate, and total phosphorous. Applicable numerical thresholds are not available for these nutrients. Table 4-3 shows the range of historical measurements for these parameters in the Rio Hondo watershed.

4.4. Metals

Table 4-4 shows the historical range of metal concentrations in the Rio Hondo watershed.

Table 4-4
Range of Historical Measurements of Metals

Metal	Low Value	High Value
Antimony	ND	ND
Arsenic	ND	14 ug/l
Barium	ND	260 ug/l
Beryllium	ND	ND
Cadmium	ND	3 ug/l
Total chromium	ND	47 ug/l
Copper	ND	70 ug/l
Lead	ND	186 ug/l
Mercury	ND	ND
Nickel	ND	41 ug/l
Selenium	ND	32 ug/l
Silver	ND	ND
Zinc	ND	340 ug/l
Thallium	ND	ND

ND = below detection limits

4.4.1. Antimony

The California Toxics Rule (USEPA 2000) sets a human health standard of 14 ug/l for antimony. All historic measurements of antimony in the Rio Hondo watershed were below detection limits.

4.4.2. Arsenic

The California Toxics Rule (USEPA 2000) sets a standard of 340 ug/l for arsenic for the protection of freshwater aquatic life. Historical measurements of arsenic in the Rio Hondo watershed range from below detection limits to 14 ug/l. Therefore, historic measurements do not indicate any exceedance of standards for arsenic.

4.4.3. Barium

The California Toxics Rule does not have any standard for barium. Environmental Protection Agency water quality criteria (USEPA 1986) recommend a limit of 1000 ug/l for domestic drinking water. Historical barium measurements in the Rio Hondo watershed range from below detection limits to 260 ug/l.

4.4.4. Beryllium

The California Toxics Rule does not have any standard for beryllium. Environmental Protection Agency water quality criteria (USEPA 1986) note that chronic toxicity to freshwater organisms has been observed at beryllium concentrations as low as 5.3 ug/l. Historical beryllium measurements in the Rio Hondo watershed range were all below detection limits.

4.4.5. Cadmium

The California Toxics Rule (USEPA 2000) sets a standard of 4.3 ug/l for the protection of freshwater aquatic life. Historical cadmium measurements in the Rio Hondo watershed range from below detection limits to 3 ug/l. Therefore, historic measurements do not indicate any exceedance of standards for cadmium in the watershed.

4.4.6. Chromium

The California Toxics Rule (USEPA 2000) sets a standard of 550 ug/l for Chromium (III) and 16 ug/l for Chromium (VI) for the protection of freshwater aquatic life. Historic measurements of chromium (VI) were all 0. Total chromium measurements range from below detection limits to 47 ug/l. Only two of the historic measurements detected chromium. A total chromium concentration of 47 ug/l was detected in the Rio Hondo at the Valley Blvd. suspension bridge on April 8, 1988. A chromium concentration of 32 ug/l was recorded in the Rio Hondo at Beverly Blvd on December 23, 1995.

4.4.7. Copper

The California Toxics Rule (USEPA 2000) sets a standard of 13 ug/l for copper to protect freshwater aquatic life. Historical copper measurements in the Rio Hondo watershed range from below detection limits to 70 ug/l. The high value of 70 ug/l was recorded in the Rio Hondo at Beverly Blvd. on December 23, 1995. Several other copper measurements that exceeded the 13 ug/l standard have been made in various locations in the Rio Hondo watershed on several occasions. Legg Lake and the Rio Hondo from the Los Angeles River to the Santa Ana Freeway are on the Clean Water Act Section 303(d) list for copper.

4.4.8. Lead

The California Toxics Rule (USEPA 2000) sets a standard of 65 ug/l for lead to protect freshwater aquatic life. Historic lead measurements in the Rio Hondo watershed range from below detection limits to 186 ug/l. The high lead value was recorded in the Rio Hondo at Beverly Blvd. on December 23, 1995. All other lead measurements in the historic database were below the California Toxics Rule lead standard. Legg Lake, Monrovia Canyon Creek, Peck Road Park Lake and the Rio Hondo from the Los Angeles River to the Santa Ana Freeway are on the Clean Water Act Section 303(d) list for lead. The historical database reviewed in this report does not contain any lead measurements in Legg Lake, Monrovia Canyon Creek, or Peck Road Park Lake.

4.4.9. Mercury

The California Toxics Rule (USEPA 2000) sets a standard of 0.05 ug/l for mercury for the protection of human health. All mercury measurements in the Rio Hondo historical database were below detection limits.

4.4.10. Nickel

The California Toxics Rule (USEPA 2000) sets a nickel standard of 470 ug/l for the protection of freshwater aquatic life. Historic nickel measurements in the Rio Hondo watershed range from below detection limits to 41 ug/l. Therefore, none of the nickel measurements in the historic database exceeded the California Toxics Rule nickel standard.

4.4.11. Selenium

The California Toxics Rule (USEPA 2000) does not have an instantaneous maximum concentration for selenium but sets a continuous concentration of 5 ug/l for the protection of freshwater aquatic life. Historic selenium measurements in the Rio Hondo watershed range from below detection limits to 32 ug/l. The high concentration of 32 ug/l was detected in the Rio Hondo at Rush Street on November 20, 1996. A selenium concentration of 7 ug/l was detected in the Rio Hondo at Beverly Blvd. on January 9, 1996 and a concentration of 6 ug/l was detected at that location January 21, 1996. All other selenium measurements in the Rio Hondo historic database were below detection limits.

4.4.12. Silver

The California Toxics Rule sets a silver threshold of 3.4 ug/l for the protection of freshwater aquatic life. All silver measurements in the Rio Hondo historical database are below detection limits.

4.4.13. Zinc

The California Toxics Rule (USEPA 2000) sets a zinc standard of 120 ug/l for the protection of freshwater aquatic life. Historic zinc measurements in the Rio Hondo watershed range from below detection limits to 340 ug/l. The high measurement of 340 ug/l was recorded in the Rio Hondo at Beverly Blvd. on December 23, 1995. All other zinc measurements in the Rio Hondo historical database were at or below the California Toxics Rule threshold of 120 ug/l. The Rio Hondo from the Los Angeles River to the Santa Ana Freeway is on the Clean Water Act Section 303(d) list for zinc.

4.4.14. Thallium

The California Toxics Rule (USEPA 2000) sets a thallium standard of 1.7 ug/l for the protection of human health. All of the thallium measurements in the Rio Hondo historical database were below detection limits.

4.5. Bacteria

Table 4-5 summarizes the range of historical measurements of bacteria in the Rio Hondo watershed.

Table 4-5
Range of Historical Bacteria Measurements

	Low Value	High Value
Fecal coliform	ND	1,700,000MPN/100ml
Total coliform	ND	3,000,000 MPN/100ml
Enterococcus	40 MPN/100ml	280,000 MPN/100ml
Fecal streptococcus	40 MPN/100ml	9,000,000 MPN/100ml

ND = below detection limits

4.5.1. Fecal Coliform

Historical measurements of fecal coliform bacteria in the Rio Hondo watershed range from below detection limits to 1700000 MPN/100 ml. The highest value was recorded in the Rio Hondo at Beverly Blvd. on December 21, 1995. Fecal coliform levels exceeding 4000 MPN/100 ml were recorded on several other dates. The Rio Hondo is on the Clean Water Act Section 303(d) list for high coliform count.

4.5.2. Total Coliform

Historical total coliform measurements in the Rio Hondo range from below detection limits to 3000000 MPN/100 ml. The high value was recorded in the Rio Hondo at Beverly Blvd. on December 12, 1995. The AB 411 single sample total coliform standard was exceeded at several locations on several other dates within the Rio Hondo watershed.

4.5.3. Enterococcus

The Water Quality Control Plan for the Los Angeles Region (LARWQCB 1994) does not have a standard for enterococcus bacteria. California Assembly Bill 411 sets a single sample enterococcus standard of 104 MPN/100 ml. for public water-contact sports areas. The Historical database contains only 10 enterococcus bacteria measurements all made in the Rio Hondo at Beverly Blvd. in 1995 and 1996. The enterococcus concentrations in these samples ranged fronm 40 MPN/100 ml to 280000 MPN/100 ml. All but two of the samples exceeded the AB 411 standard. The high value was recorded on December 12, 1995.

4.5.4. Fecal Streptococcus

The Rio Hondo historical data base also contains 10 measurements of fecal streptococcus done during the same time and at the same location as the enterococcus measurements. Fecal streptococcus concentrations ranged from 40 to 9000000 MPN/100 ml. There is no numerical standard for fecal streptococcus.

4.6. Organic Pollutants

The Rio Hondo historical database contains information on a wide variety of organic contaminants including volatile organic compounds, polyaromatic hydrocarbons, polychlorinated biphenyls, and pesticides. Almost all of these were either below detection limits or were detected at very low levels. The only organic compound that exceeded a standard in the historical database was bis(2-ethylhexyl)phthalate. The California Toxics Rule (USEPA 2000) sets a standard for this compound of 1.8 ug/l for the protection of human health. Concentrations of bis(2-ethylhexyl)phthalate in the Rio Hondo ranged from below detection limits to 99.4 ug/l. This compound is a common laboratory contaminant that frequently turns up at elevated concentrations.

5. Conclusions

With one exception, all water quality parameters measured in August, 2003, were within the range of values for the parameters in the historic data base. This exception was a very high total coliform count of 16,000,000 MPN/100ml in Eaton Canyon (Station 9). This station was below an area used as a swimming hole. The high total coliform count in the historic database is 3,000,000 MPN/100ml.

Water quality parameters that exceeded standards in August, 2003, included pH, copper, and coliform bacteria. There have numerous historical measurements of these parameters that exceeded standards and the Rio Hondo watershed is on the 303(d) list for pH, copper, and coliform bacteria. In the August, 2003, survey, exceedance of pH and coliform bacteria standards were fairly widespread in the watershed. The copper standard was exceeded at 3 stations. Therefore, the Rio Hondo watershed appears to have an ongoing and widespread problem with these parameters. Although the Rio Hondo also is on the 303(d) list for lead and zinc, these metals did not exceed California Toxics Rule criteria at any station sampled in August, 2003. Exceedance of criteria for these metals also only occurred on one occasion in the historic database. However, the historic database analyzed in this report has a limited number of metal measurements in it.

6. Literature Cited

Regional Water Quality Control Board Los Angeles Region 1994 Water Quality Control Plan Los Angeles Region

United States Environmental Protection Agency 1986 Quality Criteria for Water. EPA 440/5-86-001

United States Environmental Protection Agency 2000 The California Toxics Rule. Federal Register 65 (97): 31682-31715

Appendix B
MEMORANDUM
Rio Hondo Watershed Management Plan

To: Project Advisory Committee
Re: Water Quality Sampling - Scope of Work Report
From: Eileen Takata, Moore Iacofano Goltsman, Inc.
Date: June 26, 2003

I. Introduction

The San Gabriel Valley Council of Governments (COG), in partnership with the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC) and the Los Angeles County Department of Public Works (DPW) has received a Proposition 13 Watershed Program Grant to develop the Rio Hondo Watershed Management Plan. The Rio Hondo is a major tributary to the Los Angeles River in eastern Los Angeles County. The watershed encompasses 142 square miles that includes most of the San Gabriel Valley from Pasadena in the west, to Duarte in the east, and then south to the City of South Gate. The six major Rio Hondo tributaries are the Alhambra, Rubio, Eaton, Arcadia, Santa Anita and Sawpit Wash. The Rio Hondo Watershed Management Plan (Plan) will develop recommendations to integrate water quality, hydrologic functioning, habitat and land use issues.

II. Purpose of Sampling Program

The purpose of implementing a sampling program is to provide a "snapshot" of dry weather water quality in the watershed to support preparation of the watershed management plan. The table below lists the current 303(d) Listings of impairments to the Rio Hondo and its tributaries (2002 CWA Section 303(d) List of Water Quality Limited Segment). Note, although this 303(d) List has been approved by the State Water Resources Control Board on February 4, 2003, it has not yet been approved by the U.S. Environmental Protection Agency.

303(d) Listing Approved February 4, 2003				
Pollutant/Stressor	**Potential Sources**	**TMDL Prority**	**Estimated Size Affected**	**Proposed TMDL Completion**
Legg Lake				
Ammonia	Nonpoint/Point Source	Medium	25 acres	-
Copper	Nonpoint/Point Source	Medium	25 acres	-
Lead	Nonpoint/Point Source	Medium	25 acres	-
Odors	Nonpoint/Point Source	Medium	25 acres	-
pH	Nonpoint/Point Source	Medium	25 acres	-
Trash	Nonpoint/Point Source	Low	25 acres	-
Monrovia Canyon Creek				
Lead	Nonpoint/Point Source	High	3.4 miles	2003
Peck Road Park Lake				
Chlordane (tissue)	Nonpoint/Point Source	Low	103 acres	-
DDT (tissue)	Nonpoint/Point Source	Low	103 acres	-

Lead	Nonpoint/Point Source	Low	103 acres	-
Odors	Nonpoint/Point Source	Low	103 acres	-
Organic Enrichment / Low Dissolved Oxygen	Nonpoint/Point Source	Low	103 acres	-
Rio Hondo Reach 1 (Confl. LA River to Santa Ana Fwy.)				
Copper	Nonpoint/Point Source	High	4.6 miles	2003
High Coliform Count	Nonpoint/Point Source	High	4.6 miles	2002
Lead	Nonpoint/Point Source	High	4.6 miles	2003
pH	Nonpoint/Point Source	High	4.6 miles	2002
Trash	Nonpoint/Point Source	Low	4.6 miles	-
Zinc	Nonpoint/Point Source	High	4.6 miles	2003
Rio Hondo Reach 2 (At Spreading Grounds)				
High Coliform Count	Nonpoint/Point Source	High	4.9 miles	2002

Dry weather sampling is proposed since it is the more common annual condition and introduces less risk to those conducting the sampling. It is anticipated that the conclusions from this sampling event will not result in the isolation of specific land use areas as a source. Instead, general land use patterns from each subwatershed will be summarized as part of the final Plan. The sampling data will be used to propose a future course of action and monitoring for the watershed.

III. Constituents for Sampling

The following parameters and water constituents have been proposed for analysis during the event

CONSTITUENTS					
Nutrients		**Metals**		**Physical Parameters**	
1	Ammonia-Nitrogen	6	Copper, Total	12	Hardness
2	Nitrate-Nitrogen	7	Copper, Dissolved	13	Air temperature
3	Nitrite-Nitrogen	8	Lead, Total	14	Water temperature
4		9	Lead, Dissolved	15	pH
Bacteria		10	Zinc, Total	16	Dissolved Oxygen
4	Fecal Coliform	11	Zinc, Dissolved	17	Turbidity
5	E. coli			18	Conductivity
				19	Flow
				20	Trash (photographs)

IV. Overview of Sampling Event

As of June 11, 2003, DPW has agreed to carry out the sampling effort using their in-house staff and to assume the laboratory costs associated with a one-time sampling event for nine sites. They currently sample in the Rio Hondo and will utilize sampling procedures as stated the Quality Assurance/Quality Control Plan from the *Los Angeles County 2001-2002 Storm Water Quality Monitoring Report*, August 15, 2002. A permit from the U.S. Army Corps of Engineers may also need to be secured. Once the Sampling Scope of Work is approved by the PAC, the Sampling Event will be scheduled to take place later this summer, perhaps in August. Because the sampling locations are within a

7-mile stretch of the Rio Hondo, it is anticipated that the samples will be taken in one day.

V. Proposed Sampling Locations

There are nine proposed sites. The downstream Rio Hondo sampling site is just above its confluence with the Los Angeles River, however there is typically insufficient flow at this site to effectively collect. The second site is on the Rio Hondo at Beverly Boulevard, above the Rio Hondo Spreading Grounds. DPW has monitored at this site as recently as April 2003. The next six sites are at the confluence of the six major tributaries to the Rio Hondo, right before they flow into the main channel. The upper Eaton Canyon site, at creek crossing bridge, has been proposed as a "reference site" for comparing natural and urban watershed influences.

Below are the locations per Thomas Bros. (2003). Locations #3-#8 are meant to collect flows from the six major tributaries to the Rio Hondo. Samples need to be collected just before the tributary flow joins Rio Hondo flow. These are all concrete box channels accessible from the Lario Bike Trail, which is maintained by the County. During the site visit in late April 2003, there was ample flow from five of the tributaries.

SAMPLING SITE LOCATIONS		
No.	**Thomas Bros.**	**Location**
1	Page 705, F6	Rio Hondo at Los Angeles River Confluence
2	Page 676, F2	Rio Hondo (DPW automated sampling station)
3	page 636, H4	Alhambra Wash (above the confluence w/Rio Hondo)
4	Page 636, J2	Rubio Wash (above the confluence w/Rio Hondo)
5	page 637, A1	Eaton Wash (above the confluence w/Rio Hondo)
6	page 597, D5	Arcadia Wash (above the confluence w/Rio Hondo)
7	page 597, F3	Santa Anita Wash (at Peck Road Conservation Park)
8	page 597, H1	Sawpit Wash (at Peck Road Conservation Park)
9	page 536, D5	Eaton Wash (Eaton Canyon ; bridge crossing off Pinecrest Drive)

Appendix C
Results of August 12, 2003, Water Quality Sampling in Rio Hondo Watershed

	1	2	3	3 dup.	4	5	6	7	8	8a	9
Nitrate – N (mg/L)	2.66	2.56	2.60	5.44	5.13	4.90	1.61	ND	0.51	0.725	0.36
Nitrite – N (mg/L)	0.30	0.26	0.20	0.17	0.34	0.17	0.26	ND	ND	0.149	ND
Ammonia – N (mg/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.141	ND
Hardness (mg/L)	150	190	190	140	125	230	280	110	180	140	190
PH	9.24#	9.79#	9.10	7.58	7.42	8.63#	8.65#	9.71#	7.89	8.34	7.74
Turbidity (NTU)	1.63	1.19	1.68	2.10	2.43	1.94	3.40	11.4#	8.52#	4.81	0.45
Conductivity (pmhos/cm)	866	928	798	432	440	541	1,144	494	359	414	425
DO (mg/L)	15.3	17.12	13.6	9.96	11.32	11.30	11.32	9.26	9.09	8.12	8.3
Dissolved Copper (pg/L)	4.87	5.05	7.03	6.15	4.87	7.39	15.5*	32.0*	10.7	13.7*	2.03
Total Copper (pg/L)	10.9	9.09	11.1	8.97	7.26	12.6	19.8	38.2	15.4	25.5	6.0
Dissolved Lead (pg/L)	1.24	1.27	2.0	1.49	1.72	1.65	2.34	2.98	15.7	9.71	1.03
Total Lead (pg/L)	2.97	1.58	2.22	1.59	1.99	1.95	2.61	3.17	15.7	10.0	1.03
Dissolved Zinc (pg/L)	44.2	27.4	32.0	20.8	16.8	27.1	26.4	44.8	47.5	68.1	11.3
Total Zinc (pg/L)	44.2	27.4	32.0	20.8	16.8	27.1	26.4	44.8	47.5	71.4	11.6
Total Coliform (mpn/100mL)	300	300	90,000+	<20	5,000,000+	130,000+	130,000+	24,000+	3,000	900,000+	16,000,000+
Fecal Coliform (mpn/100mL)	300	230	50,000#	<20	500,000#	8,000#	50,000#	1,100	<20	300,000#	500,000#
E. Coli (mpn/100mL)	<10	20	1,086	<10	19,863	1,904	19,863	631	10	6,867	12,997

ND = not detected
 # = exceeds limits in Los Angeles Basin Plan
*** = exceeds limits in California Toxics Rule**
+ = exceeds limits in AB 411

Appendix D
Meeting Summary
Rio Hondo Watershed Management Plan
Project Advisory Committee Meeting #1
May 7, 2003

MEETING PURPOSE AND OPENING REMARKS

- The purpose of this first meeting of the Project Advisory Committee was to provide an overview of the project followed by a discussion among Committee members to identify issues and opportunities that should be addressed by the Plan.
- The meeting was attended by 24 individuals, including representatives from 12 cities located in the Rio Hondo Watershed, other state and local public agencies, as well as private and non-profit organizations.
- The meeting was facilitated by Daniel Iacofano of Moore Iacofano Goltsman (MIG), Inc., the consulting firm contracted by the San Gabriel Valley Council of Governments (SGVCOG) to manage the development of the Plan. Other members of the MIG Team include Phillip Williams & Associates, and the Chambers Group, Inc.
- Following introductions among all those in attendance, Belinda Faustinos, Executive Officer of the Rivers and Mountains Conservancy (RMC), began the meeting with a brief presentation explaining that the RMC is the primary partner with the SGVCOG in overseeing the development of the Rio Hondo Watershed Management Plan. Among the points she made:
    - It is important to develop a comprehensive plan for the Rio Hondo so it meets multiple needs
    - This will require a collaborative and strategic effort that is both realistic and visionary over the long term.
    - This can be done by balancing the many interests sitting around this table. Your participation will be needed to create a balanced plan.
    - This Plan will help provide cities with the best possible way to deal with water quality.
    - The Plan will help activate funding for projects that might not otherwise be available.
- Mr. Iacofano then provided an overview of the project. This included a review of project goals, the workplan, timeline, other background information, and the role of the Project Advisory Committee. (see attached copy of Power Point presentation). Additional points included:
    - The importance of integrating multiple objectives in the Plan; that more can be accomplished by pursuing several interests rather one at the expense of others.
    - It was also emphasized that this will be a 4-dimensional planning effort; i.e. a plan with time in mind. In the short term, there are limits to what can realistically be achieved, but incremental changes in the right direction over a long time frame can add up to significant positive impacts.

- The Plan will fill some information gaps with new data but given a limited grant and scope the Plan will also identify what we do not yet know and provide suggestions on how to get it

PROJECT ADVISORY COMMITTEE DISCUSSION

The following is a summary of comments made by meeting participants, organized by topic.

Desired Outcomes

- It will be important to improve recreational opportunities along the Rio Hondo by enhancing existing resources, including parks and trails. Such enhancements can also be designed to take into account water conservation.
    - Would like to see a trail connection from Peck Park to the San Gabriel River, and much better access to nearby communities. A 15-mile trail loop can be created with a connection to the San Gabriel River. Essentially, taking steps that tie together all these recreational resources for the benefit of nearby communities.
- A much greener corridor is envisioned for the Rio Hondo
    - Greening the river can detract from flood control unless you expand capacity to compensate for the greening.
    - Does an enhanced greenway include the river channel itself? – No.
    - I have never been told how you can restore a stream that has homes right next to the river.
- Sustainability has to be a part of the Plan. It needs to take into account not just upfront capital costs but also ongoing maintenance and operational costs. It takes a lot of dollars to maintain natural areas so they still look natural. Many parks look like parks because they are relatively easy to maintain vs. more natural parks like the Long Beach natural area where people are not allowed to walk. So, whatever we plan on doing it needs to be practical, implementable, and fundable.
    - A good plan can attract the funds needed to implement and sustain the plan over time. For instance, the LA River Master Plan has succeeded in attracting $100 million to fund projects
- Groundwater recharge – we need to make sure no pollutants enter the groundwater. . There are creative approaches for accomplishing this vs. the way things have been done in the past. For instance, permeable parking lots such as the auto lots in Cerritos along the San Gabriel River.
- Education should be an important outcome of the Plan. To promote public awareness about clean water so people don't throw out trash or other activities that impact water quality. Also, local cities and other stakeholders need to take ownership of the river.
- The Federal government needs to be involved in the education process. National primetime TV campaigns are what is required to change people's behavior. Local ground up messages simply do not reach people.
- Jurisdictional responsibilities need to be identified in the document

- Land use, zoning changes, and development standards should be addressed as part of the Plan. City requirements for new driveways now still require concrete. We are still doing things the wrong way.

Water Quality

- How do the pollutants (listed in the project overview handout) impair the beneficial uses of the Rio Hondo? The Regional Board has not drawn a connection between these pollutants and the beneficial uses of the river. First, identify the problem and then document whether there is a connection with these "pollutants." It will be important to ask the Regional Board why they have designated these pollutants as such.
- Water quality and TMDLs- most local city public works departments are now taking major fiscal hits. So, it will be important to determine how to treat water quality cost-effectively. Suggested the need to collaborate on Best Management Practices
- It will be more cost effective to handle TMDL's regionally rather than city by city. So, will the Plan focus on regional or local solutions?
- How we handle water quality TMDLs is a major concern.
- Where is this document headed? Will it focus on regional solutions vs. solutions required of municipal jurisdictions. Cities are now being driven by stormwater permit requirements that are not cost effective. The document should apprise the Regional Board of regional solutions. The law as it now stands will require within 10 years that all water be cleaner than drinking water before it enters the stormwater system. We need the Regional Board to allow more flexibility or all our resources will be consumed by this.

Context Questions/Issues

- What is the definition of a river vs. a flood control channel? The answer to that question might change the degree of oversight and regulation. The Federal definition of a river is a navigable waterway that can carry commerce. However, none of our local rivers meet that definition. We need cost-effective solutions.
    - These solutions need to be integrated into your capital improvement programs. A positive outcome requires that all players be at the table developing cost-effective solutions.
- How does this interface with other similar efforts in the San Gabriel Watershed and the LA River?
    - The RMC will play a large role in coordinating these respective sub-watershed efforts.
- How is the Rio Hondo watershed distinct from the San Gabriel River Watershed or the LA River Watershed?
    - The Rio Hondo is a subwatershed of the LA River.
    - In past years, during flood events, these watersheds mixed together, but they are separate, connected systems
    - Political boundaries are not aligned with watershed boundaries.
    - Local cities could be confused by what they perceive as similar competing efforts.

- Need maps and exhibits to clarify the distinctions between these watersheds and various planning efforts

Stakeholder Participation Process

- Since the Regional Board is the agency imposing these regulations it will be important for them to also be at this table.
  - The Regional Board is a member of the Planning Team for this project and are going to be regular participants in these meetings.
- To what extent will cities from the Gateway COG be involved in this process?
  - They will be involved to the same extent as the SGVCOG cities. Four of the six Gateway COG cities invited to today's meeting are here today.
- I am disconcerted that I did not know about this project during its incubation stage.
  - The invitation letter had to be sent to the top of each organization invited to participate and in some instances it took time to circulate to the right person within each organization.
- The San Gabriel Water Quality Control Board has not yet designated a representative but they have been invited.
- Both COGs will make sure this is an inclusive process
- Have any Federal or State elected officials been invited to participate in this process?
- Will Plan document just go to the Project Director or to the full PAC? I want to make sure that we have not missed anything here.

Other Comments

- The Sun Valley Watershed Management Plan integrates water quality, recreation, and flood control. Uses wetlands in quarry for water quality treatment and as a means for holding stormwater, and habitat enhancement.
- Coordinated, collaborative efforts are needed for river restoration efforts, with especially high standards for projects along the river. A document being developed for the Upper San Gabriel River Watershed will have guidelines and tools for the right way to do these things.
- Although this is a balanced process that is focused on developing a watershed plan for the long term it is ok to also address short term projects
- To what extent does this project entail property acquisition? – There is no way to know at this time.

Potential Opportunities

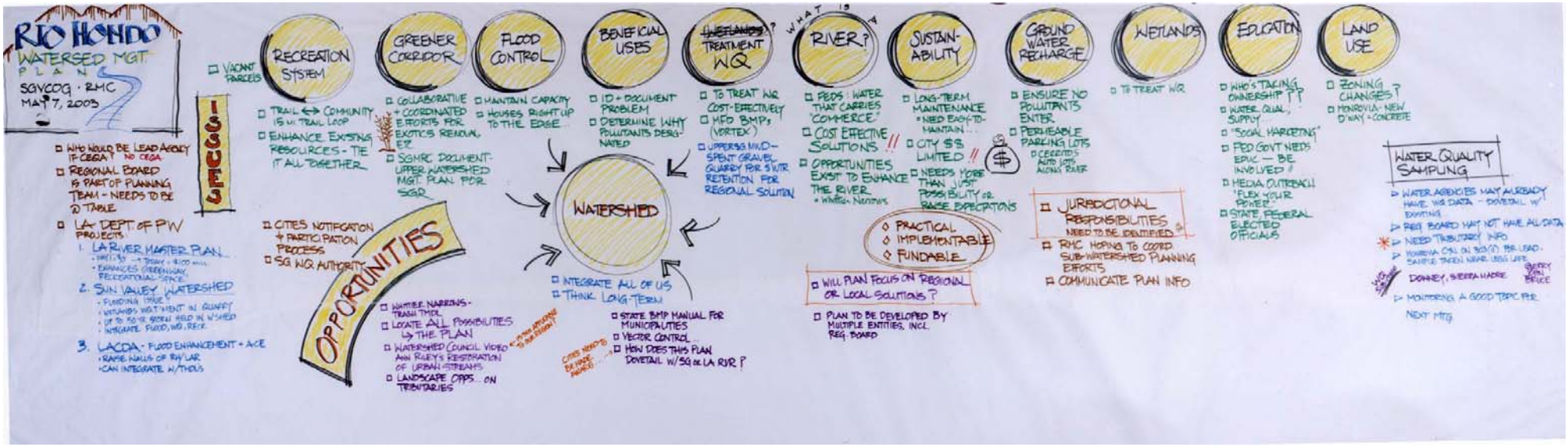
- Whittier Narrows/Lario Creek TMDLs
- The Plan should include an inventory of all possibilities – the greatest opportunities or leverage points – for achieving the objectives of the Plan.
- There is a Watershed Council video (Ann Riley) on urban stream restoration that may be applicable to this study.
- Since the watershed is much more than just the corridor along the river, you may be surprised at the number of potential opportunities.

- In Downey, we saw only one slim possibility applicable to our city among the many methods presented in that video. Many seemed designed only to address 5-year floods and would be washed out by larger 25-year events.
- We should definitely refer to the State BMP manual so we don't reinvent the wheel
- What is the lead agency responsible for CEQA clearance? –RMC.

Water Quality Sampling

- All water purveyors already do water quality monitoring. We should talk with them so to avoid unnecessary re-testing. We need to use existing water quality data.
- Regional Board may not have all data.
- It is important to get tributary data.
- Monrovia Canyon on 303(d) list for lead. It takes only one sample to get on the list, but then 12 clean samples are required to get off the list.
- Department of Health Services may also have water quality data that would be useful
- Asked for volunteer help from city and other stakeholder representatives to assist with water quality monitoring effort –a water quality subcommittee. Those who responded at this time:
    - John Alderson, City of San Marino
    - Gerry Greene, City of Downey
    - Bruce Inman, City of Sierra Madre
- Water quality monitoring will be a topic for discussion at the next meeting

The next PAC meeting is scheduled for July 2.


RIO HONDO
WATERSED MGT
PLAN
SGVCOG · RMC
MAY 7, 2003
ISSUES
VACANT PARCELS
RECREATION SYSTEM
GREENER CORRIDOR
FLOOD CONTROL
BENEFICIAL USES
WETLANDS? TREATMENT WQ
WHAT IS A RIVER?
SUSTAIN-ABILITY
GROUND WATER RECHARGE
WETLANDS
EDUCATION
LAND USE
WATERSHED
OPPORTUNITIES
WATER QUALITY SAMPLING
JURISDICTIONAL RESPONSIBILITIES
PRACTICAL
IMPLEMENTABLE
FUNDABLE

Appendix E
Rio Hondo Watershed Management Plan

Water Quality Subcommittee Meeting Summary

June 16, 2003

San Gabriel Valley Council of Governments

10:00 am – 12:00 pm

Attendees:
Gerry Greene, City of Downey
Douglas Benash, City of Monrovia
Shirley Birosik, LA Regional Water Quality Control Board
Valerie Carrillo, LA Regional Water Quality Control Board
Belinda Faustinos, Rivers and Mountains Conservancy
Cathie Chavez, Rivers and Mountains Conservancy
Bobby Cochran, Rivers and Mountains Conservancy
Vik Bapna, LA County Department of Public Works
Roland Romain, LA County Department of Public Works
Eileen Takata, Moore Iacofano Goltsman, Inc.

Purpose of Meeting: To review and refine the Draft Water Quality Sampling Scope of Work Report (Report) in order to present it to the Project Advisory Committee (PAC) for their approval at the July 2, 2003 meeting.

I. Introductions

Introductions were made. Purpose of this meeting was stated. Note, only one of the three original Water Quality Subcommittee members were in attendance, that was the City of Downey. The representatives from the Cities of Sierra Madre and San Marino were unable to attend, therefore the City of Monrovia was invited to attend. The three WQ Subcommittee members volunteered to join this group at the first Project Advisory Committee meeting held on May 7, 2003.

II. Overview – Water Quality Sampling

The group determined that TMDL development is NOT a goal of this Watershed Plan and sampling event. Rather, this Plan seeks to integrate and address TMDLs, for example, by sampling for current 303(d) Listed pollutants, but not to specifically add to or de-list a particular TMDL. For assurance, perhaps as early as late July, the Regional Board will be able to provide documentation to the PAC on recommended procedures for 303(d) listing and de-listing. This is to clear up any doubts as to whether or not this sampling event and Watershed Plan will result in additional TMDLs.

Shirley Birosik of the Regional Board suggested bioassessment, or macroinvertebrate collection and analysis, as an alternative to water chemistry testing, which this Sampling program involves. The conclusion to this discussion was, although considered a valid and important methodology to understanding water quality, bioassessment is out of the question at this time due to time and budget constraints. The group recommended moving forward with the water quality sampling as outlined in the Report and integrating bioassessment monitoring into the final recommendations of the Watershed Plan.

The use of volunteers is a part of the Watershed Plan Scope of Work. It was determined that DPW, because they are contributing in-kind monitoring and laboratory analysis services, they are "volunteers" for this project. However, the Project Team will consider the inclusion of volunteers in a future event such as a Rio Hondo trash pick-up or some other event. This is to fulfill the broader goal to begin the process of building a constituency for the Rio Hondo Watershed, which is currently missing.

. Land use will be reported for each of the tributary subwatersheds in order to make general recommendations for Best Management Practices. However, due to lack of more specific water quality sampling results, a direct correlation between land use and the data collected this summer can not be made.

III. DRAFT Sampling Scope of Work

The group recommended revisions to the Report, including refinements to the 303(d) Listings, to the list of constituents, and to the sampling locations.

IV. QAPP – Monitoring Protocol

Because DPW has agreed to undertake this sampling event and pay for the laboratory analysis costs, their QAPP is sufficient for the group. Copies of the QAPP were handed out. It is part of their *Los Angeles 2001-2002 Storm Water Quality Monitoring Report,* August 15, 2002, available on their website.

V. Next Step Recommendations

The Report will be revised per the discussion of the group, sent out within the next day for final review to the group, and then sent out to the entire PAC for their review approximately one week prior to the July 2 meeting. At the July 2 meeting, the PAC will discuss the Report and the Water Quality Subcommittee's recommendation to approve the Report and Sampling Scope of Work.

VI. Conclusion

The meeting adjourned at 12pm.

Reported by Eileen Takata, Moore Iacofano Goltsman, Inc.

Appendix F
Meeting Summary
Rio Hondo Watershed Management Plan
Project Advisory Committee Meeting #2
July 2, 2003

MEETING OVERVIEW

- The primary purpose of this second meeting of the Project Advisory Committee was to review the proposed Water Sampling Scope of Work. This draft document had been previously reviewed and refined by the Water Quality Subcommittee at a meeting on June 16. In addition to the proposed Water Quality Sampling Scope, PAC members were provided a written summary of the Water Quality Subcommittee meeting and a map identifying proposed sampling locations in the Rio Hondo Watershed.

- After addressing Water Quality Sampling, the PAC members also had questions regarding the overall Watershed Plan and received a brief presentation on the mapping process that is helping with the Watershed Existing Conditions Analysis.

WATER QUALITY SAMPLING

- The meeting began with an overview of the proposed Water Quality Sampling Scope by Eileen Takata from MIG. This was followed by a discussion facilitated by Daniel Iacofano.

- It was stated by Shirley Birosik from the Regional Water Quality Control Board – LA that a one time sampling event will not lead to new listings. She also stated that the State Regional Board has been looking at the process for listing and de-listings. A policy report from the State Regional Board is almost out, which will document the process for listing and de-listing TMDLs.

- The map of proposed sampling locations should be revised. Sample sub-drainages only at their confluences with the Rio Hondo.

- Gerald Greene from the City of Downy stated the proposed water sampling scope reflected a generally correct approach. However, there was still concern of TMDL's being created from one sampling event, even just a snapshot. In contrast, it takes a year of samplings to be de-listed.

- It would be great if we had correspondence from the Regional Board assuring us that if we find something it won't come back to bite us later.

- A sampling event is not rigorous enough to provide a complete picture of water quality. It is only one input. Cannot generalize from one sample at one time to the whole watershed.

- The watershed management plan will not be based on this sample. The final watershed plan will include recommendations for more complete sampling.

- If we were not doing this (the water quality sampling), then who would be doing it? - No one, the Watershed Plan would rely on existing data.

- Still nervous about doing this since there could be multi-billions of dollars in question.

- It was stated by one stakeholder that while it was important to be concerned about the regulations, at the same time we don't want to lose the focus on water quality.

- An acute toxicity test with bad results is the only one time event that could remotely trigger a TMDL listing. The proposed water quality sampling scope is not sampling for toxicity events.

- The proposed scope is testing constituents based on the 303d listing. Are there constituents that are not listed but are coming up?

- The proposed methodology minimizes the risks to the cities. If we put it in writing and all parties agree to it, including the Regional Board, then the sampling event won't come back to haunt us at a later time. The bottom-line is that we need an agreement from the Regional Board that they buy-off on this methodology.

- If the grantor is requiring that we do this, then we need to move beyond this. Instead, it is important that we focus on the overall goals and strategies of this Plan.

- We are better off doing this as a group, rather than individually. Our data points should be pooled with other monitoring events.

- Sampling standards should be the same for all. Instead, there is a higher standard to de-list, than being placed on the list in the first place.

- Once the water quality control policy document comes out, the process will be clearer than it has been before.

- It is very helpful and important for the Regional Board (Shirley Birosik) to be at all the PAC meetings.

- Existing water quality sampling data for the Rio Hondo is from the late 80's and early 90's. It provides more of a historic timeline that is outside the window of the

TMDLs. If there is anything significantly different from this historic baseline (a sampling data spike), then we will go back to resample.

- All the water quality sampling data (both existing and from the sampling event) will be brought back to the PAC for their review.

- The sampling event included in this project contract was proposed by the COG and the RMC and was not required by the Regional Board.

- DPW will carry out the sampling event with one-weeks notice.

- What is the minimum number of sampling events required for a listing? What is in the de-listing document? What is the listing process by which constituents will be listed?

- When the approved draft water quality control policy is released it will be circulated to the PAC.

- It was also agreed that the PAC will send a letter to Dennis Dickerson of the Regional Board addressing the concerns of the PAC requesting clarification from the Regional Board. The sampling event can be done in parallel with the letter as it will take time to get a response from the Regional Board.

- It was pointed out that we are better off with a one-time event versus volunteers going out there five times in a year. This approach gives us more control over the situation.

WATERSHED PLAN QUESTION AND ANSWER

- Since a significant amount of flows is from imported water coming into the Rio Hondo for recharge, I assume the sampling event will not be affected by this imported water?
    - LA County Sanitation District releases water in the Rio Hondo
    - Requested that Gary Hildebrand from LA Count DPW provide a presentation to the PAC describing the Rio Hondo system.

- Which beneficial uses are appropriate?
    - Rec-1 needs further study.

- When will existing data analysis be done? The Chambers Group will conduct the data analysis. A summary of the results from this analysis will be provided for the next PAC meeting and the Water Quality Subcommittee will review it.

MAPPING/EXISTING CONDITIONS ANALYSIS

- Eileen Takata reviewed the GIS Map Production Matrix. It lists the various maps under development that will be used to draw conclusions and provide input into the

Watershed Management Plan. Bobby Cochran from the Rivers and Mountains Conservancy presented 15 maps that have already been completed to aid existing conditions analysis. Some of the comments and questions included:

- Map 4-A: Biking, Hiking, Equestrian Trails – Are you able to distinguish these different types of trails? – The map features Class I Bikeways, mountain trails, and trail information provided by LA County Parks and Recreation. Trail information from individual cities is not yet available.

- Maps 2-C: Groundwater and 2-D: Water Supply Opportunities – what is the information source for these maps? - Possible sources could be:
    - San Gabriel Valley Water Quality Authority
    - San Gabriel Municipal Water District

- Map 3-C: Storm Drains should be a part of Map 1-A: Flood Control & Water Diversion Structures

- What happened to Map 2-A? – It is not relevant to this project. This matrix was derived from San Gabriel River project, therefore maps will be re-numbered for Rio Hondo.

- How will the maps be made available to the PAC? – these maps will all be featured in the report and can be posted on a website.

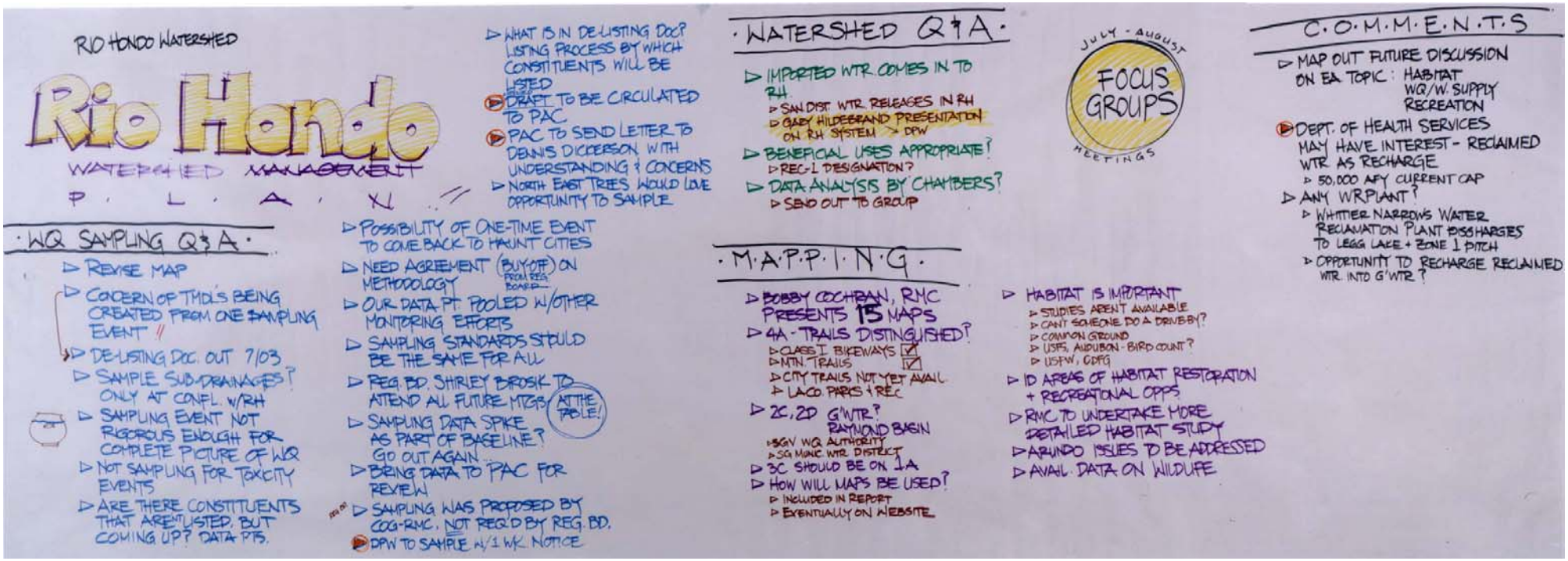
- Map 6-F: Habitat Restoration and Connectivity Opportunities – This map not feasible as the relevant studies are not available to draw upon. Other potential information sources to draw upon:
    - Common Ground report
    - U. S. Forest Service, Audobon Society (bird count)
    - US Fish and Wildlife, California Department Fish and Game

- There should be more emphasis placed on this area (habitat restoration). The RMC is conducting a more detailed habitat study for the whole area.

- It will be important to identify known concentrations of Arundo

- Should we include the Department of Health Services in these meetings, as especially there may be conflicting objectives. The WRD wants to use all available reclaimed water for recharge beyond the current 50,000 AFY cap.

- Are there any water reclamation plants in the Rio Hondo watershed?
    - The Whittier Narrows Reclamation Plant is not in the watershed, but it returns water to it (discharges to Legg Lake and Zone 1 Ditch)
    - Opportunities to recharge reclaimed water into groundwater?


RIO HONDO WATERSHED
Rio Hondo
WATERSHED MANAGEMENT
P · L · A · N
▷ WHAT IS IN DE-LISTING DOC? LISTING PROCESS BY WHICH CONSTITUENTS WILL BE LISTED
▷ DRAFT TO BE CIRCULATED TO PAC
▷ PAC TO SEND LETTER TO DENNIS DICKERSON WITH UNDERSTANDING & CONCERNS
▷ NORTH EAST TREES WOULD LOVE OPPORTUNITY TO SAMPLE
· WQ SAMPLING Q & A ·
▷ REVISE MAP
▷ CONCERN OF TMDLS BEING CREATED FROM ONE SAMPLING EVENT //
▷ DE-LISTING DOC. OUT 7/03
▷ SAMPLE SUB-DRAINAGES? ONLY AT CONFL. W/RH
▷ SAMPLING EVENT NOT RIGOROUS ENOUGH FOR COMPLETE PICTURE OF WQ
▷ NOT SAMPLING FOR TOXICITY EVENTS
▷ ARE THERE CONSTITUENTS THAT ARE NOT LISTED, BUT COMING UP? DATA PTS.
▷ POSSIBILITY OF ONE-TIME EVENT TO COME BACK TO HAUNT CITIES
▷ NEED AGREEMENT (BUY-OFF FROM REG. BOARD) ON METHODOLOGY
▷ OUR DATA PT. POOLED W/OTHER MONITORING EFFORTS
▷ SAMPLING STANDARDS SHOULD BE THE SAME FOR ALL
▷ REG. BD. SHIRLEY BROSIK TO ATTEND ALL FUTURE MTGS (AT THE TABLE!)
▷ SAMPLING DATA SPIKE AS PART OF BASELINE? GO OUT AGAIN
▷ BRING DATA TO PAC FOR REVIEW
▷ SAMPLING WAS PROPOSED BY COG-RMC, NOT REQ'D BY REG. BD.
▷ DPW TO SAMPLE W/1 WK. NOTICE
· WATERSHED Q & A ·
▷ IMPORTED WTR. COMES IN TO RH
▷ SAN DIST. WTR. RELEASES IN RH
▷ GARY HILDEBRAND PRESENTATION ON RH SYSTEM > DPW
▷ BENEFICIAL USES APPROPRIATE?
▷ REC-1 DESIGNATION?
▷ DATA ANALYSIS BY CHAMBERS?
▷ SEND OUT TO GROUP
JULY - AUGUST
FOCUS GROUPS
MEETINGS
· M · A · P · I · N · G ·
▷ BOBBY COCHRAN, RMC PRESENTS 15 MAPS
▷ 4A - TRAILS DISTINGUISHED?
▷ CLASS I BIKEWAYS ☑
▷ MTN. TRAILS ☑
▷ CITY TRAILS NOT YET AVAIL.
▷ LACO PARKS + REC.
▷ 2C, 2D G'WTR? RAYMOND BASIN
▷ SGV WQ AUTHORITY
▷ SG MUNIC. WTR. DISTRICT
▷ 3C SHOULD BE ON 1A
▷ HOW WILL MAPS BE USED?
▷ INCLUDED IN REPORT
▷ EVENTUALLY ON WEBSITE
▷ HABITAT IS IMPORTANT
▷ STUDIES AREN'T AVAILABLE
▷ CAN'T SOMEONE DO A DRIVE-BY?
▷ COMMON GROUND
▷ USFS, AUDUBON - BIRD COUNT?
▷ USFW, CDFG
▷ ID AREAS OF HABITAT RESTORATION + RECREATIONAL OPPS
▷ RMC TO UNDERTAKE MORE DETAILED HABITAT STUDY
▷ ARUNDO ISSUES TO BE ADDRESSED
▷ AVAIL. DATA ON WILDLIFE
· C · O · M · M · E · N · T · S ·
▷ MAP OUT FUTURE DISCUSSION ON EA TOPIC: HABITAT WQ/W. SUPPLY RECREATION
▷ DEPT. OF HEALTH SERVICES MAY HAVE INTEREST - RECLAIMED WTR AS RECHARGE
▷ 50,000 AFY CURRENT CAP
▷ ANY WRP PLANT?
▷ WHITTIER NARROWS WATER RECLAMATION PLANT DISCHARGES TO LEGG LAKE + ZONE 1 DITCH
▷ OPPORTUNITY TO RECHARGE RECLAIMED WTR. INTO G'WTR?

Appendix G
Rio Hondo Watershed Management Plan

Stakeholder Focus Groups Summary

August 26 to 28, 2003

San Gabriel Valley Council of Governments

The following is a summary of each of six stakeholder focus groups addressing the development of the Rio Hondo Watershed Management Plan that were held over a 3-day period in late August. The purpose of the focus groups was to hear from a wide range of perspectives on strategic issues impacting the Rio Hondo Watershed. For this reason each focus group was set up for a specific set of stakeholders, or affinity group, as follows:

- Non-Profits and Public Agencies
- Gateway COG cities and SGVCOG cities
- Non-Profits
- Public Agencies
- SGVCOG cities
- Water Agencies

Each focus group session was structured around three key questions or themes:

- What is your vision of a healthy watershed?
- What issues and challenges must be addressed in order to achieve this vision?
- What strategies, opportunities, and projects should be pursued to resolve these issues and make this vision a reality?

The twenty-eight individuals who participated in the focus groups represented a wide range of cities and other organizations with a stake in the Rio Hondo Watershed.

RIO HONDO WATERSHED MANAGEMENT PLAN

Non-Profits & Public Agencies - Focus Group #1

Key findings from the August 26, 2003, Non-Profits & Public Agencies Focus Group are presented below:

VISION

- *Strive for a Balanced, More Natural Watershed:* Create more natural waterways with less concrete in the river and throughout the watershed, including greater reliance on alternative flood control techniques,
- *Restore Multi-Use Habitat Areas*: Integrate native habitat with nearby communities
- *Enhance Watershed Visibility and Awareness:* Use interpretive elements and signage at key locations such as parks, transit stations, and trailheads to promote watershed awareness and stewardship
- *Use the River to Transform and Define Communities:* Reconnect the river to the economic and social fabric of the communities along its banks. The Rio Hondo is seen as an asset to be promoted for the benefit of all residents and the economic well-being of the community rather than a forgotten, hidden liability.
- *Protect and Expand Open Space:* Identify existing open space that can be preserved as well as industrial and other temporary facilities with future potential for conversion to other land uses. Government agencies can take a more pro-active role to concentrate development
- *Promote Water Quality through Education:* Use greater public understanding of watershed hydrologic functions to change individual behavior and build support for regional water quality improvement efforts

ISSUES AND CHALLENGES

- The cost of funding these solutions can be high. Economic incentives along with clear, measurable returns on the proposed investments will be required to sustain progress.
- Population growth will further increase pressures on the watershed, making solutions even more difficult.
- Some current building and land use codes are counter-productive and need revision. Homeowners landscaping with native plants are sometimes fined for failing to maintain “weed-free” manicured lawns.
- A balance must be found between societal needs and the vision of a more natural watershed. The public should be provided more choices (in housing types, alternative landscaping, etc) but cannot be forced to make changes they do not accept.
- There is a need to find win-win solutions that bring together diverse interests. Patience will be required along with ways to measure progress toward short-term and long-term goals.

STRATEGIES

- Create a balanced approach by listening to and working with all parties.
- Develop constructed wetlands for stormwater retention and treatment at key regional locations, including Peck Park and Whittier Narrows. These same locations can function as multi-use parks during dry weather.
- Assess the potential of using the parking lots at Santa Anita Park and the LA County Arboretum for tangible, multi-use demonstrations in capturing parking lot runoff, water quality improvements, and use of native plants.
- Use interpretive signage at train stations and watershed boundary lines to promote watershed awareness along with complementary educational programs to emphasize the rich cultural and historic landscape of the Rio Hondo watershed.

RIO HONDO WATERSHED MANAGEMENT PLAN

Gateway COG & SGVCOG Cities - Focus Group #2

Key findings from the August 27, 2003, Gateway COG & SGVCOG Cities Focus Group are presented below:

VISION

- *Build Trust:* Develop shared understandings and agreements so that all stakeholders are working together in an atmosphere of trust.
- *Ensure Public Safety and Flood Control:* Provide sufficient drainage to ensure public safety and the protection of property.
- *Involve the Cities in Coordinated Efforts to Develop a Healthy River:* Leverage city initiatives to improve the watershed through science-based, reasonable, and cost effective solutions. Support cities in joining together in collective efforts that leverage their efforts. Recognize cities for the initiatives they develop.
- *Focus on Key Sites:* Maximize results by targeting improvements at key sites. Start with the Rio Hondo Spreading grounds, Whittier Narrows, and Peck Park.
- *Promote Watershed Goals by Responding to City Issues:* The cities support the promotion of habitat protection, stewardship and open space. However, their primary responsibilities are to ensure flood control and fulfill their fiduciary responsibility to minimize financial risk to their citizens.
- *Develop Science-Based, Cost-Effective Strategies:* Use improvement approaches that achieve the greatest result for each dollar spent and based on a full scientific analysis.

ISSUES AND CHALLENGES

- The Rio Hondo has a major role in flood control. A more natural model will require major changes.
- Improvement efforts create significant capital and ongoing costs and can create legal liability.
- Regulatory requirements change frequently, making it difficult for cities to plan
- Policies are not consistent. Implementation and enforcement are not linked created risk for cities.

STRATEGIES

- Create a special assessment district to identify, prioritize and fund watershed improvements. The district would involve stakeholders in setting priorities. Focus should be on highest cost-benefit projects. The district should only be established if regulatory offsets are included in recognition of cities' efforts to make improvements. Such a district would create community agreements on improvements.
- Explore regional and subregional collaborative approaches by cities to seek grants. This will increase the chances of success and reduce competition between cities.
- Focus improvements at targeted opportunity sites – the Spreading Grounds, Whittier Narrows, and Peck Park
- Build trust by developing a multi-stakeholder group to identify beneficial uses for each reach.
- Develop a strategic approach that prioritizes cost-effective approaches and uses both preventative and "end-of-pipeline" solutions. There is a limit to cities' ability to control citizens' behavior.
- Phase projects starting with mandates and building toward discretionary enhancements.

RIO HONDO WATERSHED MANAGEMENT PLAN

Non Profits - Focus Group #3

Key findings from the August 27, 2003, Non Profits Focus Group are presented below:

VISION

- *Develop Habitat and Natural Systems:* Green the channel margins to provide habitat. Remove invasive species. Reduce impervious surfaces. Use sustainable natural systems to address pollution.
- *Promote Broad Awareness of the River and Watershed Benefits:* Create a clear identity for the River through clear signage and a coordinated approach to accessing the river. Educate stakeholders and the public about the benefits open space creates for property values and tax revenues. Communicate our area's reliance on local ground sources to meet water supply needs. Keep the focus on the watershed through better technical analysis and development of criteria that focus on the watershed impacts of policies and development actions. Encourage the next generation to become watershed stewards.
- *Protect and Steward Water Supply:* Conduct "ground water repair" to ensure the viability of local water supply. Preserve the upper watershed.
- *Coordinate Restoration Efforts Across Watersheds:* Ensure watershed efforts in the San Gabriel and Rio Hondo are aligned.
- *Develop Long-Range High-Quality Projects:* Go beyond small "window dressing" projects to achieve substantial improvements to the watershed.
- *Create Trails and Low Impact Recreation:* Provide opportunities for recreation and use of paths along the river. Develop the river trail system to promote walking and biking a transportation alternatives.

ISSUES AND CHALLENGES

- We need better dialog about watershed issues. There is not a common vision and set of goals. Fragmented jurisdictional control in the watershed and water rights issues complicate discussions.
- Financing projects is always a major hurdle.
- There is a need to educate cities about the financial and other benefits of converting land to open space.
- Creating effective natural flood control is a challenge, as is dealing with existing controls technologies.
- Developing innovative solutions can be difficult, in particular being responsive to the needs of a growing population for jobs and housing, etc., while protecting the watershed.
- Poor understanding of watersheds, coupled with concerns about flood and West Nile, etc. are a barrier.
- Concern about pollution in the first 3 hours of storm run-off limits the storage of water.

STRATEGIES

- Develop tributary-based stewardship groups.
- Provide incentives for cities to develop solutions.
- Identify projects with multiple benefits, e.g., supply, quality, flood control, recreation, etc.
- Reduce peak flood run-off, through cisterns and other storage devices.
- Create demonstration models to show how transformation of the watershed can happens: Lashbroke Park could be an example.

- Develop partnerships between cities, non-profits, agencies to address multiple interests and build trust.
- Conduct education on the uses and value of watersheds, including the benefits communities currently derive from the River, and the reasons why we should preserve the watershed for the future.
- Create venues for “cross boundary” communication involving multiple stakeholders and spanning watersheds.
- Integrate alternative transportation improvements along the river to provide public amenities and connect the watershed to parks.
- Develop planning tools: GIS mapping with natural and social information (cultural/ethnic patterns, crime, etc.). Compile existing research and planning models, including international examples and River Walks. Identify a range of protection strategies, from zoning, to easements to acquisition. Develop an inventory of opportunities along the river.

RIO HONDO WATERSHED MANAGEMENT PLAN

Public Agencies - Focus Group #4

Key findings from the August 27, 2003, Public Agencies Focus Group are presented below:

VISION

- *Promote Native Biological Diversity:* Minimize human impacts to the watershed and create a supportive environment for native species. Create landscaping linkages from the top to the bottom on the watershed to provide habitat connectivity.
- *Enhance Water Supply:* Increase the recharge of run-off and develop new storage options.
- *Implement Non-Traditional Flood Control:* Use the existing GIS list of unmet local flood control needs to identify opportunity sites for innovative flood control solutions, such as detention basis. These can be integrated in a regional solution to free up downstream capacity.
- *Establish Efficient Hydrological Cycles:* Develop strategies to maximize rainfall recharge in the watershed.
- *Enhance Water Quality:* Reduce pollution.
- *Promote Stakeholder Buy-In:* Address property issues, flood control and operations and maintenance.
- *Develop Multiple Objective Initiatives:* Address water supply, water quality, and habitat issues, while addressing flood control and new public health concerns such as vector control (e.g., West Nile virus).
- *Provide Recreational Opportunities:* Develop environmentally sensitive recreational uses in tandem with other beneficial uses such as flood control, water quality, and conservation.
- *Support the Renewal of Adjacent Watersheds:* Develop coordinated approaches that support the watershed enhancements in the Los Angeles and San Gabriel rivers.

ISSUES AND CHALLENGES

- Stakeholder acceptance of flood control and property protection levels is critical.
- We need to maintain current levels of water conservation in any new approach.
- A key issue is securing adequate capital and operations/maintenance funding.
- There is a challenge in documenting the economic value of a healthy watershed system.
- Neighborhood opposition to wetlands, due to fumes and nuisances related to animals.
- Lack of trust is an issue, as is lack of agreement on TMDL standard setting process (e.g., trash).
- One issue is creating a manageable set of projects, and consistency across projects, given the many needs.
- The long timeframe of some solutions will require patience on the part of stakeholders.

STRATEGIES

- Assess unmet local drainage needs and develop multi-objective regional solutions. Alternatives to storm drains are more expensive, but have many more benefits.
- Enhance the Rio Hondo spreading grounds and creating a linkage to the San Gabriel spreading grounds. A major project including greenways, bike paths and rest areas would draw people in and create an important educational opportunity to learn about the watershed.

- Develop information resources to support planning: Create property map to show opportunity sites for possible acquisition. Identify a portfolio of potential projects to draw from when funding becomes available. Compile possible mitigations (see Santa Monica Conversancy model as a resource).
- Pursue regulatory opportunities to avoid degradation related to development. One option is to identify offsetting mitigations within the watershed that could be used if on-site mitigation is impossible.
- Develop options based on successes in other watershed efforts. Examples include Arroyo Seco, Ballona Creek, Compton Creek, Dominquez Channel, Sun Valley, San Diego Creek, and San Juan Creek.
- Use the LA River Master Plan documents as guidelines for maintenance, signage, and landscaping. Move toward regional consistency.
- Create improvement demonstration sites at Peck Park, Whittier Narrows, and Alario Creek. At Peck Park, install trash collections control and enhance habitat using a flow through wetlands.
- Create a greenway from Peck Park to Alhambra Wash.

RIO HONDO WATERSHED MANAGEMENT PLAN

SGVCOG Cities - Focus Group #5

Key findings from the August 28, 2003, San Gabriel Valley COG Cities Focus Group are presented below:

VISION

- *Create A Safe and Visually Attractive Environment Along the Rio Hondo:* Make the river a more appealing, safe public place by removing trash, providing greenery, adding lighting, and addressing the transient problem.
- *Develop A Cohesive Regional Trail System:* A potential network of trails along the Rio Hondo and its tributaries can be linked to nearby recreational resources, including the San Gabriel Mountains.
- *Implement Reasonable Water Quality Solutions.* Use a cost-effective, cooperative, approach at common "choke points," rather than shifting the entire cost for a clean Rio Hondo to individual city efforts.
- *Form a Watershed Consortium to Ensure A Collaborative Approach:* Led by the RMC, SGVCOG, SGV Water Quality Authority or other neutral entity, it would provide the organizational framework needed by cities to pursue shared, cost-effective programs beyond their individual resources.
- *Eliminate Liability:* Use a commitment to implement the Rio Hondo Watershed Management Plan as the basis for a hold harmless agreement with the state and federal governments on water quality improvements.

ISSUES AND CHALLENGES

- Substantial resources are being misdirected to deal with water quality litigation instead of being more productively used to implement feasible watershed enhancement solutions.
- There is a lack of rigorous technical analysis to support current regulatory and fiscal requirements for implementation of recommended water quality improvements
- There is a critical funding shortage to carryout these improvements. Political support must be developed along with greater public understanding and acceptance for these programs. Leadership is required.
- Operational and maintenance costs for these programs can be unpredictable. Population growth will increase impacts and with it the costs of improving water quality.
- The Rio Hondo Watershed Management Plan has the potential to increase costs for the cities. It will need to be reviewed by the Board of the SGVCOG.

STRATEGIES

- Analyze the costs and potential benefits of proposed watershed enhancements to define projects that are technically feasible, cost-effective, and fiscally implementable.
- Inventory all existing and planned improvement projects, as well as potential enhancement opportunities, to determine where resources should best be directed to achieve watershed improvement goals.
- Explore ways to mitigate impacts related to population growth. Those responsible for development should assume a greater share of responsibility for water quality improvements.
- Pursue legislation to encourage cities to implement good faith water quality improvement efforts. The current litigious legal environment is now a disincentive for doing the right thing. A more rational, transparent process based on an agreed set of graduated steps and goals would reward rather than penalize such efforts.
- Develop the leadership around which a viable watershed consortium can be formed.

RIO HONDO WATERSHED MANAGEMENT PLAN

Water Agencies - Focus Group #6

Key findings from the August 28, 2003, Water Agencies Focus Group are presented below:

VISION

- *Remove SuperFund Site:* Clean up the Upper Basin toxic groundwater plume and prevent its migration to the Central Basin.
- *Maximize Local Groundwater Supply*: Reduce dependence on imported water by expanding capacity to capture treat and store storm water, improving water conservation programs, and encouraging recycled water usage.
- *Enhance Public Understanding of Water Supply Processes:* Increase community awareness of groundwater as a major water supply source, and of how their actions impact the watershed and water quality
- *Build Public Trust;* Improve public perception of local water agencies and the quality of the local water supply, including uses and risks associated with recycled water.
- *Create Community Connection to the Watershed:* Use recreational, educational, and volunteer programs to build community awareness of the Rio Hondo Watershed as a critical local resource.

ISSUES AND CHALLENGES

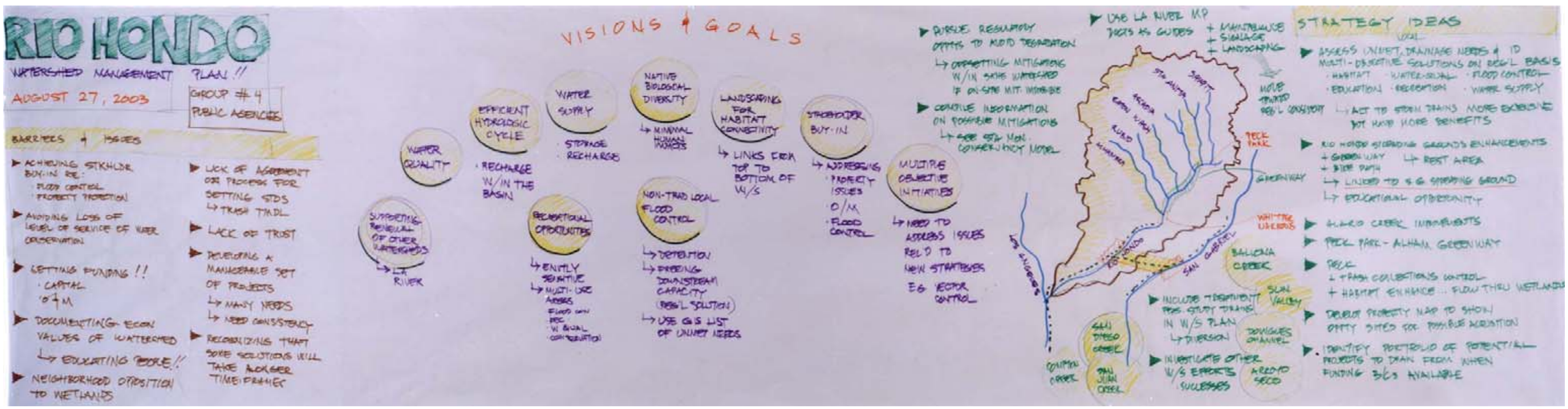
- Trust between customers and water agencies, between agencies on matters of supply and quality, and with the regulatory agencies needs to be re-established
- The cost of meeting water quality standards, including groundwater cleanup, is high, and this greatly complicates deciding who should pay for the clean up
- Establish good science on contaminants to define what is meant by “clean water;" use this information to create a firm consensus among all involved public agencies.
- Public awareness of water supply and watershed issues is inadequate; the problem is now and not in the distant future but most are not yet aware of this
- Some fears impede the search for solutions; whether it is the public’s fear of recycled water, or public agency fear of data regarding pollution levels.

STRATEGIES

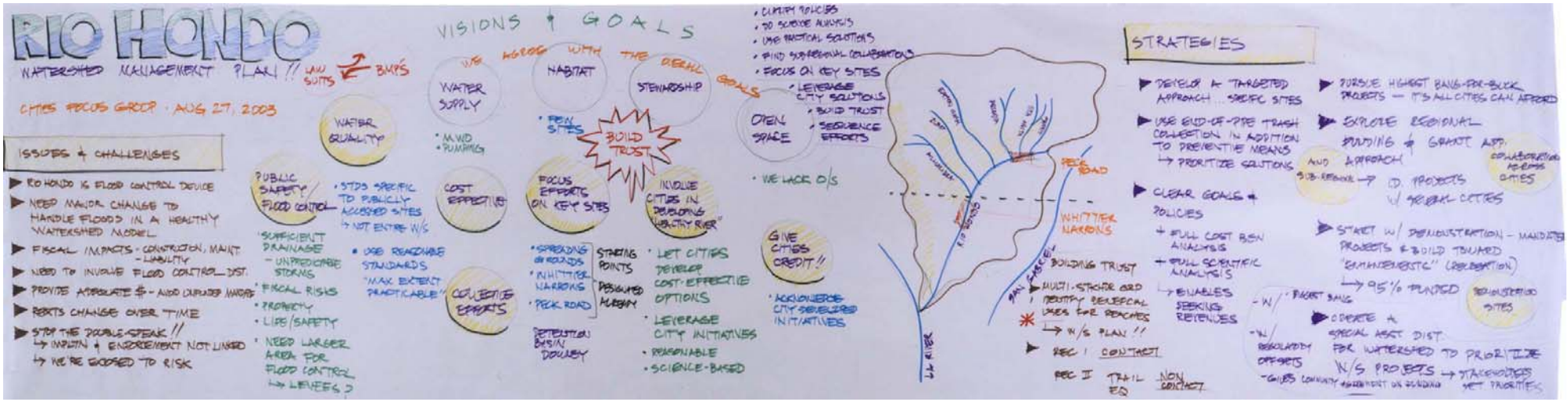
- Enhance communication, coordination, and collaboration between agencies, including the Department of Health Services and the water agencies.
- Pursue multi-agency projects that address inter-related benefits of the watershed rather than narrowly-defined single-focus projects that overlook the overall context of the watershed.
- Develop new water pricing strategies, including higher prices, which better reflect the true value of water and by doing so help conserve its use
- Build low-impact recreational opportunities, in combination with water management facilities, at strategic locations like Peck Park that can attract people to the river while also having educational value.
- Promote water conservation technologies
- Conduct a joint study on the health impacts of recycled water
- Develop a watershed-based curriculum for grades K through 12.


RIO HONDO
WATERSHED MANAGEMENT PLAN //
AUGUST 28, 2003
WATER AGENCIES
ISSUES & CHALLENGES
COST OF MEETING WQ GOALS / STANDARDS
BUILDING TRUST
ESTABLISH GOOD SCIENCE ON CONTAMINANTS & WHAT IS CLEAN WATER
INCREASING PUBLIC AWARENESS OF WATER SUPPLY & WATERSHED ISSUES
ADDRESSING FEAR OF DATA RE: POLLUTION LEVELS
ADDRESSING FEAR OF RECYCLED WATER
CONTAMINANTS IN THE SOILS OVER G-WATER
VISIONS / GOALS
MAXIMIZE CAPTURE & RECHARGE
ENHANCED TRUST
BETTER UNDERSTANDING OF RECYCLED WATER
SUPERFUND SITE REMOVED
MAX USE OF TIME BASIN STORAGE
ENHANCED EDUCATION OF PUBLIC RE: GROUNDWATER
BETTER COMMUNICATION OF RECYCLED WATER
CONNECTION TO W/S CORRIDOR RECREATION
ENHANCE AWARENESS OF DOWNSTREAM IMPACTS
MAINTAIN CAPITY INVESTMENT IN MAINTAINING W/S QUALITY
VOLUNTARY COMPLIANCE ENFORCEMENT
UPPER DISTRICT
CENTRAL BASIN
MULTI-USE MULTI-BENEFIT
STRATEGIES, OPPORTUNITIES & PROJECTS
ENHANCE COMMUNICATION BTWN AGYS ... DHS, W. AGYS
MULTI-AGCY PROJECTS TO ADDRESS THE WHOLE PROBLEM, NOT JUST
DEVELOP NEW PRICING STRATEGIES
CREATE MULTI-AGCY PROJECTS
BUILD NON-MOTOR REC OPTIONS TO DRAW PEOPLE TO RIVER
DEVELOPING W/S BASED CURRIC. FOR K-12
PROMOTING WATER CONSERVATION TECHNOLOGIES (CLOTHES WASHERS)
SPEED SUBSTAND CLEANUP
COLLABORATE W/ OTHER EDUCATION ORG
CONDUCT JOINT STUDY EFFECTS OF HEALTH IMPACTS OF RECYCLED WATER
PURSUE BIO-RETENTION


RIO HONDO
WATERSHED MANAGEMENT PLAN!
STAKEHOLDER FOCUS GROUPS
SGVCOG August 28 2003
RUN THIS PLAN BY THE COG //
→THIS PLAN CAN CREATE COSTS FOR CITIES
ISSUES & CHALLENGES
► SHORTAGE OF FUNDING
► DEVELOPING POLITICAL SUPPORT (CITIES, COUNTIES, ST
► RESIDENT SUPPORT / ACCEPTANCE
WILD
► COS & MAINTENANCE NEEDS & COST
↳ UNPREDICTABLE B/C USE CHANGES
► INCREASING POPULATION
↳ HIGHER USE ↳ MORE IMPACTS
► LACK OF RIGOROUS IMPLEMENTATION ANALYSIS BACKED BY TECH. ANALYSIS (FISCAL, REGULATORY, TOPOGRAPHIC, ETC.)
► MISDIRECTING RESOURCES TO WAT. QUAL LITIGATION INSTEAD OF DO-ABLE ENHANCEMENTS
► NEED LEADERSHIP TO MAKE W/S PLAN A REALITY ... FOCUSED ON COOPERATION DISCUSSIONS //
V·I·S·I·O·N·S & G·O·A·L·S
RECREATION & OPEN SPACE
· PEDL PARK
A COLLABORATIVE APPROACH W/ CITIES
PUBLIC OUTREACH & INFORMATION
· MAPS OF TRAIL SYSTEM
· SIGNAGE
WHAT THE RIVER MEANS TO US HISTORICAL VIEWS
A COHESIVE TRAIL SYSTEM
· REGIONAL NETWORK
· PEDESTRIAN BRIDGES
· LINKS TO REC CENTERS ON TRIBUTARIES
PUBLIC SAFETY
· TRAIL USERS ARE SAFE /
· MORE USERS INCREASES SAFETY /
· LIGHTING
· FLOOD CONTROL
VISUAL ENHANCEMENTS
· REMOVE TRASH
· MORE GREENERY
A CLEAN RIO HONDO
· STORM DRAIN MAINTENANCE
· STREET SWEEP
· BETTER USE RECYCLABLE SURFACES IN RECREV
A CONSORTIUM FOR COMMUNICATION ETC CITIES
· CONSISTENCY
· COORDINATION
THRU RMC ?
COGs ?
SGV WATER QUAL AUTH ?
WATER MASTER ?
REASONABLE WATER QUAL SOLUTIONS
· DON'T SHIFT COST TO CITIES
· COOPERATIVE APPROACH AT COMMON "CHOKE POINT"
→ MORE COST-EFFECTIVE
ELIMINATE LIABILITY
· GET STATE/FED HOLD HARMLESS BASED ON RH W/S PLAN COMMITMENTS
CONNECTIONS TO MOUNTAINS
RECREATION OPPORTUNITIES
STRATEGIES
► EXPLORE WAYS TO MITIGATE IMPACTS AT THE SOURCE REL'D TO POPULATION GROWTH
• GRAY WATER / RUN-OFF TO TREATMENT FACIL BY R.H.
• PEOPLE REST FOR DEVELOPMENT ALSO REQ'D FOR WATER QUAL
► ANALYZE COSTS & BENEFITS OF W/S ENHANCEMENTS TO REMOVE / IMPLEMENTABLE PROJECTS
► INVENTORY EXISTING PLANNED IMPROVEMENTS — SPECIFICS (TRAILS, AMENITIES, ETC.)
► DEVELOP PROCESS TO ENCOURAGE CITIES TO IMPLEMENT GOOD FAITH EFFORT
↳ REMOVE DISINCENTIVES CREATED BY LITIGATION
↳ SET GRADUATED STEPS & GOALS
YOU GOOD WORK TO MAKE THINGS BETTER & NOT BE PENALIZED FOR DOING SO
- INCENTIVES FOR DOING SO
- PENALTIES FOR NOT DOING SO
REQUIRES LEGISLATIVE CHANGE
► DEVELOP CONSORTIUM W/ LEADERSHIP
► EDUCATE POLITICAL LEADERS
► INVOLVE PUBLIC EDUCATION & MULTIBENEFITS PROJECTS
& TOURISM ENHANCEMENTS


RIO HONDO
WATERSHED MANAGEMENT PLAN !!
AUGUST 27, 2003
GROUP # 4
PUBLIC AGENCIES
BARRIERS + ISSUES
VISIONS + GOALS
WATER QUALITY
EFFICIENT HYDROLOGIC CYCLE
RECHARGE W/IN THE BASIN
WATER SUPPLY
STORAGE
RECHARGE
NATIVE BIOLOGICAL DIVERSITY
LANDSCAPING FOR HABITAT CONNECTIVITY
LINKS FROM TOP TO BOTTOM OF W/S
STAKEHOLDER BUY-IN
MULTIPLE OBJECTIVE INITIATIVES
NON-TRAD LOCAL FLOOD CONTROL
STRATEGY IDEAS


RIO HONDO
WATERSHED MANAGEMENT PLAN
STAKEHOLDER FOCUS GROUPS
August 27 2003
NON-PROFITS
ISSUES & CHALLENGES
VISIONS & GOALS
FOR A HEALTHY WATERSHED!!
STRATEGIES
REMOVE ARUNDO
PROVIDE INCENTIVES
IDENTIFY PROJECTS W/ MULTIPLE BENEFITS
REDUCE PEAK FLOOD RUN-OFF
CREATE DEMONSTRATION MODELS TO SHOW TRANSFORMATION
COMPILE EXISTING RESEARCH
DEVELOP PARTNERSHIPS BTWN CITIES, NPO'S AGCYS
USE GIS MAPPING W/ MANY DIMENSIONS
INVENTORY OPPORTUNITIES ALONG THE RIVER
CONDUCT EDUCATION ON THE USES & VALUE OF WATERSHED
DEVELOP FINANCING STRATEGIES
INTEGRATE MT TRANSIT ALONG RIVER
CREATE VENUES FOR CROSS-BOUNDARY COMMUNICATION
COLLABORATION!


RIO HONDO
WATERSHED MANAGEMENT PLAN
CITIES FOCUS GROUP · AUG 27, 2003
ISSUES & CHALLENGES
RIO HONDO IS FLOOD CONTROL DEVICE
NEED MAJOR CHANGE TO HANDLE FLOODS IN A HEALTHY WATERSHED MODEL
FISCAL IMPACTS - CONSTRUCTION, MAINT - LIABILITY
NEED TO INVOLVE FLOOD CONTROL DIST.
PROVIDE ADEQUATE $ - AVOID UNFUNDED MANDATES
RISKS CHANGE OVER TIME
STOP THE DOUBLE-SPEAK !!
INFILTN + ENDRIEMENT NOT LINKED
WE'RE EXPOSED TO RISK
VISIONS + GOALS
WATER SUPPLY
HABITAT
STEWARDSHIP
WATER QUALITY
PUBLIC SAFETY / FLOOD CONTROL
COST EFFECTIVE
BUILD TRUST
FOCUS EFFORTS ON KEY SITES
COLLECTIVE EFFORTS
OPEN SPACE
GIVE CITIES CREDIT !!
STRATEGIES
DEVELOP A TARGETED APPROACH - SPECIFIC SITES
USE END-OF-PIPE TRASH COLLECTION IN ADDITION TO PREVENTIVE MEANS
CLEAR GOALS + POLICIES
+ FULL COST BEN ANALYSIS
+ FULL SCIENTIFIC ANALYSIS
ENABLES SEEKING REVENUES
PURSUE HIGHEST BANG-FOR-BUCK PROJECTS
EXPLORE REGIONAL FUNDING + GRANT APP. APPROACH
START W/ DEMONSTRATION - MANDATED PROJECTS & BUILD TOWARD "COMMENSURATE" (CELEBRATION)
CREATE A SPECIAL ASST DIST. FOR WATERSHED TO PRIORITIZE W/S PROJECTS
WHITTIER NARROWS
PECK ROAD
RIO HONDO
BUILDING TRUST
REC I CONTACT
REC II TRAIL NON CONTACT


RIO HONDO
WATERSHED
FOCUS GROUP #1
AUGUST 26, 2003
1:30-3:30 pm
NON-PROFITS + PUBLIC AGENCIES
CHALLENGES
MONEY, FUNDING !!
REGULATIONS !!
SOLUTIONS NEED ECONOMIC !! INCENTIVES
WHAT AM I GOING TO GET OUT OF THIS?
QUANTIFY RETURN ON INVESTMENTS
FOR BUSINESS + PUBLIC AGENCIES
THINK OUT-OF-THE-BOX
INTEGRATE SCHOOLS, AGENCIES, CITIES
EDUCATE + FIND CREATIVE SOLUTIONS
HOW DO OUR SOLUTIONS AFFECT HABITAT?
MEASURE SUCCESS OF PROGRAMS
POPULATION GROWTH?
NEED TO CHANGE CURRENT BLDG CODES, LAND USE CODES
WORK W/CITIES TO DEVELOP WIN-WIN SOLUTIONS
NATIVE PLANTS ARE CONSIDERED "WEEDY" - NEED TO CHANGE - EDUCATION !!
RESIDENTIAL LANDSCAPE ETHIC MUST CHANGE - WATER CONSERV.
PATIENCE
STAGE PROGRAMS, MEASURABLE PROGRESS
SHORT / LONG-TERM GOALS
BE FLEXIBLE - IF IT DOESN'T WORK, TEST, TRY AGAIN "ADAPTIVE MGMT"
KNOW WHAT TO MEASURE
REGULATED COMMUNITIES VS. ENVIRONMENTAL COMM.
DON'T FORCE THE PUBLIC
DISCOVER WHAT THE PUBLIC REALLY WANT?
HOW TO BALANCE SOCIETAL NEEDS W/ VISION?
NEED WIN-WIN SOLUTIONS !!
HOW DO YOU BRING DIVERSE INTERESTS TOGETHER?
VISION
HEALTHY WATERSHED
PROGRESSION OF LAND USES
CONCRETE
HABITAT
HABITATS MAY BE COMPROMISED W/ WETLANDS TREATMENT
WATER QUALITY EDUCATION + IMPROVEMENTS
UNDERSTAND HYDROLOGIC FUNCTIONING
WE'RE IN A W'SHED THAT TAKES IN FROM MULTIPLE PLACES
WHAT HAPPENS TO TRASH
IT'S NOT MAGIC !!
CREATE INCENTIVES TO IMPROVE
NATURAL RIVERS
LESS CONCRETE
MORE NATURAL WATERWAYS
RE-DESIGN, RE-ALIGN RIVERS
RESTORE RIVER FLOODPLAINS
WE'RE OBSESSED W/ HIDING OUR RIVERS!
USE RIVERS TO TRANSFORM COMMUNITIES
USE TRIBUTARIES
BALANCE MULTI-USES
HEALTHY WATERSHED
RESTORE MULTI-USE HABITAT
LESS CONCRETE THROUGHOUT WATERSHED
LOOK @ ALL W'SHED !!
DETENTION BASINS
EDUCATE PUBLIC AGENCIES ON INTERCONNECTIONS
INTERPRETIVE ELEMENTS @ PARKS
RH IS A HISTORIC W'SHED
WE'RE ALIENATED FROM W'SHED
SIGN: "YOU'RE ENTERING THE RIO HONDO WATERSHED"
RICH NATURAL HISTORY
UNDERSTAND WHAT WAS LOST
OPEN SPACE
PROTECT EXIST. OPEN SPACE
RE-CREATE, UN-DEVELOP OPEN SPACE
INDUSTRIAL OR TEMP STORAGE FACIL. → OPEN SPACE
CONCENTRATE DEVELOPMENT
GOV'T AGENCIES TAKE STRONGER PRO-ACTIVE ROLE TO ACQUIRE + CONVERT LAND USES
UTILIZE DEVELOPMENT RIGHTS TRANSFER AS INCENTIVE
TRANSPORTATION + TRAILS
RAILWAYS OPEN UP DIALOGUE
IMPACT OF CURRENT TRANSPORTATION SYSTEM
ENCOURAGE ALTERNATIVE MEANS OF TRANSPORTATION
TRAIL NETWORK ENHANCEMENT
TRANSIT STATIONS CONNECT TO TRAIL NETWORK
TRAINS UNDER-UTILIZED ASSET
MOTIVATE CITIES TO BUILD STATIONS THAT CONNECT TO TRAIL NETWORK
CONSTANT REMINDER: "USE A TRAIL/TRAIN - USE THE WATERSHED"
USE TRAINS/STATIONS INTERPRET W'SHED &
"YOU ARE HERE"
STEWARDSHIP
COMMUNITY STEWARDSHIP TO MAKE RIVER MORE VISIBLE
HOW CAN RIVER CREATE/DEFINE COMMUNITIES?
INTERPRETIVE SIGNAGE PROMOTES STEWARDSHIP
INTEGRATE NATIVE HABITAT W/ COMMUNITIES
OPPORTUNITIES
MT. WILSON - EATON WASH TRAILS
L.A. CO. ARBORETUM
SANTA ANITA PARK
MULTI-USE DEMONSTRATION
TRAIL LOOP
POTENTIAL CONSTRUCTED WETLANDS @ PECK PARK
STORM WATER RETENTION
POTENTIAL CONSTRUCTED WETLANDS @ WHITTIER NARROWS
STORM WATER RETENTION
STRATEGIES
MULTI-USE PARK W/ S'WTR TREATMENT IN WET WEATHER
WHERE IN W'SHED CAN WETLANDS OCCUR ON REGIONAL BASIS?
REAL TANGIBLE PROJECTS GETS ATTENTION, $$, PROGRESS
COLLECT S'WTR TO REDUCE PEAK FLOWS
SLOW-DOWN WATER !!
REGIONAL TRAIL NETWORK CONNECT TO TRAIN STATIONS
INTERPRETIVE SIGNAGE
@ TRAIN STATIONS
@ W'SHED BOUNDARY/ HIGHWAY SIGNS
LISTEN TO ALL PARTIES TO CREATE BALANCE
INTEGRATED APPROACH: NATIVE PLANTS + FAVORITE NON-NATIVES
SATELLITE-CONTROLLED IRRIGATION TO PREVENT OVER-WATERING
EMPHASIZE RICH CULTURAL LANDSCAPE
SG MISSION
ORANGE GROVES
LEMON TREES
WALNUT TREES

SUMMARY OF WATERSHED FOCUS GROUPS

Six focus groups met over a three day period, form August 26 to 28, 2003 and identified three opportunity sites for most immediate maximized results:

- Peck road Conservation Park
- Whittier Narrows
- Rio Hondo Spreading Grounds

Peck Road Water Conservation Park Opportunities

The Upper San Gabriel MWD is interested in more groundwater capture

Treatment wetland in lake (± 5 acres) is possible

Create wetland on upland east side of lake

- Water supply would include urban runoff and possibly lake water
- Wetland would provide urban runoff treatment

Enhance open space area on peninsula

- Plant native vegetation (coyote brush & oaks)
- Create viewing areas with interpretive signage and other park amenities

Trash capture gate to be placed at end of Santa Anita and Sawpit Washes

- Proposed by Monrovia & other Cities
- Uses Best Management Practice (BMP) approach
- EPA funded, placed adjacent to channel
- Series of bar grates, ¼" capture floatables & other trash
- Requires only about 15' of space
- Storm water is diverted through BMP, comes out cleaner

Grade lake edges to increase available habitat & reduce erosion

- Develop peninsulas and islands to increase edge habitat
- Vegetate with riparian plants
- Maintain percolation capacity
- Coordinate restoration efforts with the Sierra Club
- Create viewing areas with interpretive signage

Tie Hanson Quarry in to park lakes opportunities

- 460 acres just east of park
- Potential recharge & urban runoff clean-up opportunity

Opportunity for a sediment and debris trap near the inlet channel to the lake

Potential park enhancements include

- Bike trail signage, Improved entry with decorative gate, and a trail loop
- Demonstrate water conservation technologies

Whittier Narrows Key Issues

Challenge is to achieve balance between multiple issues:

- Recharge - Habitat - Flood management - Recreation

Proposed water conservation pool by the Water Replenishment District (WRD)

- Provide additional water for recharge
- Pool would flood habitat and recreation areas for up to 2 weeks
- WRD has worked to move oil companies out of the area
- WRD using 1998 ACE study as baseline
- Money and buy-in needs to occur for conservation pool to move forward

- Hollywood Beautification Team (HBT) to remove Arundo north of 60 Freeway and golf course
- Examine cross-section for Ele. 209 (from ACE Study) for recharge and habitat/recreation opportunities
- Identify critical and non-critical habitat areas
- Next steps for WRD/ACE project implementation
  - Agree on habitat and recreational needs
  - RMC, LA County Parks, WRD, ACE, and others
- Alhambra wash (1,000-1,500 ft) concrete removal with 100 ft wide floodplain
- Pico Rivera Golf Course expansion behind dam
- Mission Creek is moving forward (RMC and Parks)
- Lario Creek/Zone 1 Ditch habitat restoration project is also moving forward (North East Trees)
- Site of original San Gabriel Mssion – historic & cultural value
- La Fiesta property for sale
- Investigate upcoming TMDL's and appropriate BMP's

Habitat Restoration Needs

Needs to be consistent with 1996 Master Plan by U.S. Army Corps of Engineers

In some areas maintained for flood control, native riparian habitat may need to be removed to maintain flood control functions

Remove non-native invasive species and replace with natives

- In areas designated as habitat, arundo should be removed and the areas revegetated with native riparian vegetation such as willows and mulefat
- Remove other non-native plant species such as Pepper trees, sow thistle, castor bean, Russian thistle, and replace with natives such as willows, mulefat, and coyote brush
- Plant native trees such as sycamores and oaks in landscaped areas and, where possible, replacing non-native trees with natives.

Improve habitat connectivity by planting native vegetation

- Patches of native or ruderal habitat occur throughout Whittier Narrows are often dominated by non-native species that could be revegetated with native species

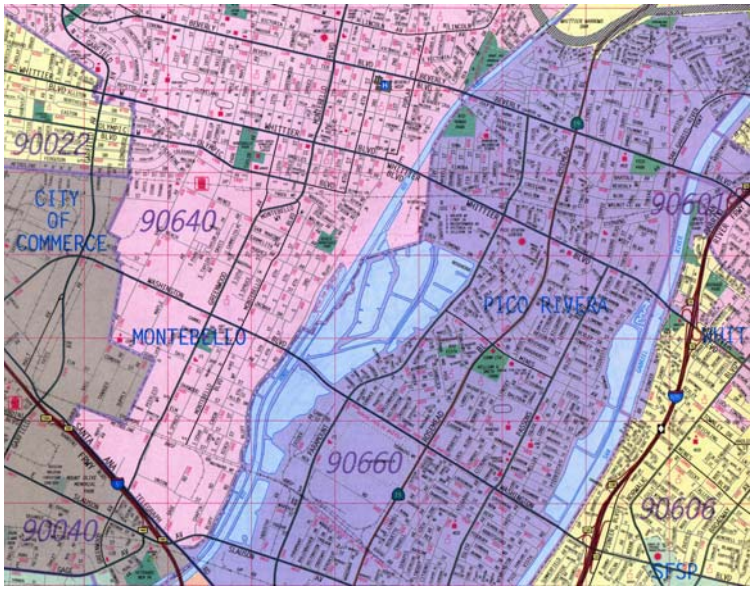
Whittier Narrows Opportunities

- Development of additional habitat behind dam
- Increasing infiltration behind dam with creation of pools

Aerial View of Whittier Narrows

Rio Hondo Spreading Grounds

- In the City's of Pico Rivera, Montebello, Bell Gardens & Downey
- 20 basins that cover 570 acres
- Owned and operated by the Los Angeles County Department of Public Works
- Water Replenishment District (WRD) responsible for groundwater recharged
- Upper areas more productive than lower areas
- No habitat creation unless additional recharge area is found



- Parking lot at north is potential recharge area
  - 30 acres needs to be acquired
  - site is over very productive recharge area

- "Oxbow" spreading basin to the south as potential wetlands
  - Southern basins not as productive for recharge as northern ones
  - Need to compensate for loss of recharge

- Montebello developing an equestrian trail master plan
  - From Whittier Narrows Dam to Spreading Grounds

- Pico Rivera received Proposition A funds for bike path improvements

- Gate upgrade
  - Potential opportunity to include trash screens

Appendix H
Rio Hondo Watershed Management Plan

Water Quality Subcommittee Meeting Summary

September 2, 2003 DRAFT

San Gabriel Valley Council of Governments

1:00 pm – 3:00 pm

Attendees:
Gerry Greene, City of Downey
Douglas Benash, City of Monrovia
Shirley Birosik, LA Regional Water Quality Control Board
Belinda Faustinos, Rivers and Mountains Conservancy
Cathie Chavez, Rivers and Mountains Conservancy
Mickey Chaudhuri, LA County Department of Public Works (DPW)
Eileen Takata, Moore Iacofano Goltsman, Inc. (Producer of this report)

Purpose of Meeting: To review draft report by Chambers Group of existing water quality data, water quality sampling results taken by DPW on August 12, 2003, and the State Board's draft Water Quality Control Policy, July 1, 2003.

I. Introductions & Purpose of Meeting

Introductions were made. Purpose of this meeting was stated.

II. Water Quality Monitoring

Existing Data Analysis - The Chambers Group developed a report summarizing existing water quality data compiled by the Regional Board. The Regional Board compiled data over the last few decades from different agencies including the Board (compliance), LA County Department of Public Works (compliance), Sanitation Districts of Los Angeles County (compliance & water supply), and the CA Department of Water Resources (water supply). The group noted that this data is limited and was taken for specific water resource needs and the sampling locations were limited to a few sites. The Regional Board views this data as historical data, useful for observing changes over time. This data summary report is currently available in draft format.

Water Quality Sampling Event - DPW conducted a sampling event on August 12, 2003, sampling at nine locations, including the bottom of the watershed, at the confluence of the Los Angeles River. Due to releases from Santa Fe Dam at the time of sampling, high flows were experienced in Sawpit Wash at Peck Road Water Conservation Park. These flows originated from the Upper San Gabriel River reservoirs and released into Sawpit Wash via the Buena Vista Channel. A sample was taken in Sawpit Wash at Peck Road Water Conservation Park. However, to obtain results representative of the Sawpit Wash subwatershed, an additional sample was taken upstream of Buena Vista Channel on Sawpit Wash on August 18, 2003. The laboratory results are currently available.

Upon scanning the laboratory results, it was noted that there were high levels of pollutants for constituents already listed on the current 303(d) List, so no new surprises. Shirley Birosik made initial observations regarding results of the laboratory analysis. She looked for "patterns" in the data. For example, she noted that the coliform levels in the reference site were surprisingly high. Through discussion, it was determined that this site was downstream of a popular swimming hole by the water falls upstream. Lowest levels of coliform were at the confluence with the Los Angeles River. She noted that zinc is almost all dissolved, and copper showed up as a combination of dissolved and suspended.

Additional Discussion - There was a discussion regarding the need to address Beneficial Uses, as defined by the State Water Resources Control Board. These Beneficial Uses need to be balanced with the goals of this Watershed Plan for best possible City buy-off on the Plan. Specifically, there are specific locations within the watershed with Beneficial Uses including all canyons for recreation, Peck Road Water Conservation Park for groundwater recharge and recreation, Whittier Narrows for recreation, and the Rio Hondo Spreading Grounds for groundwater recharge and recreation.

Water quality standards that currently are not being met imply that treatment is needed. Treatment could be biological (treatment wetlands), mechanical (manufactured BMPs such as trash or oil traps, or treatment plants), or preventative (education programs). The message needs to be clear that treatment of polluted urban runoff needs to occur! There is a need for marketing and education of the public and agencies. Agencies need solutions tied to funding strategies. Current City Ordinances will be examined for their potential to improve not only water quality, but other watershed management measures as well. For example, the MS-4 Permit regulates water quality stemming from new development, but does not necessarily address runoff from existing land uses. Also, enforcement of this permit is a factor of staff time and available budget.

III. State Water Resources Control Board - Policy Guidelines

Overall, the Subcommittee is satisfied with the fact that guidelines for listing are outlined in the Draft "Water Quality Control Policy: for Guidance on Assessing California Surface Waters," July 1, 2003. It was noted that the number of exceedances to list was low in comparison to de-listing (see Table 5.2, pg. 21). The guidelines state that three (3) samples out of ten to eleven for a constituent must exceed the limit before it is listed on the 303(d) List (see Table 4.2, pg. 15). Because we carried out only one sampling event, we have not met the minimum criteria for listing a new constituent on the 303(d) List. Toxicity has the most stringent criteria, but we did not sample for toxicity at this time. We will state our understanding in a letter from the Water Quality Subcommittee, addressed to Mr. Dennis Dickerson, Executive Officer of the Los Angeles Regional Water Quality Control Board. Pending further review of sampling data, this letter will be drafted and circulated to members of the PAC for review and comment.

We clarified that any Land Use assessment of the watershed will not be directly correlated to the data collected from the one sampling event. Instead, the Land Use for each subwatershed will be summarized for percent land use type, and correlated to Land Use Monitoring data collected by DPW as an MS-4 Permit requirement, as reported in the 1994-2000 Integrated Receiving Water Impacts Report, July 31, 2000.

IV. **Conclusion**

V. The meeting adjourned at 3 pm.

Appendix I
Rio Hondo Watershed Management Plan

Project Advisory Committee Meeting #3
Meeting Summary

September 10, 2003

MEETING PURPOSE AND OPENING REMARKS

- The primary purpose of the meeting was to review findings from the stakeholder focus groups and to then review and discuss the preliminary plan framework. The latter provides an overview of the developing watershed plan, as defined by its vision of a healthy watershed, eight goals that support the vision, and strategies designed to achieve those goals.

- The meeting began with a brief overview of key findings from the stakeholder focus groups, as presented by Mark Sillings from MIG. In all the focus group sessions, three sites – the Rio Hondo Spreading Grounds, Whittier Narrows, and Peck Park – kept coming up as possible areas for multi-objective, regional projects.

- These findings, along with input from the two preceding PAC meetings was used to develop the preliminary plan framework, which was the basis for the subsequent discussion facilitated by Daniel Iacofano.

MEETING OVERVIEW

Much of the discussion focused on the opportunity to implement regional solutions at the three key sites but also how to balance these potentially high-impact, multi-objective projects with other local efforts that are also needed. Other related issues concerned whether the Regional Board would accept this proposed regional approach, and how the watershed plan would help leverage funding for both regional and local projects. A Regional Projects subcommittee was formed to deal with these questions in more detail.

The following summarizes major points raised by stakeholders during the course of the discussion:

- It was observed that while it was commendable to identify multiple goals, as outlined in the plan framework, there was concern that this would diffuse overall efforts within the watershed. Instead, there was a need for regional solutions, especially for water treatment, rather than hundreds of small, local solutions.

- High-leverage, regional projects at major, strategic locations – such as using the spreading grounds as water quality treatment wetlands – would be far more cost effective and have more of a significant, measurable impact than multiple cities trying to do it on their own.

- The expertise, leverage, and political support to make the regional projects happen is already in this room.

- It was commented that the Upper Water District is looking at the gravel quarries as possible future sites for regional, multi-objective project, including water quality treatment, recreation, and habitat restoration.

- The question for the PAC to consider is where should we first focus our efforts?

- Belinda Faustinos from the RMC observed that the Rio Hondo Watershed Plan will help set priorities and determine future funding allocations. They would like to see the emergence of regional, high-impact projects from the watershed plan, rather than the complete dispersion into separate, small projects, but local projects also need consideration. It will be important to evaluate projects in terms of which ones can deliver the greatest benefits for the most area.

- It was asked, have we as a group agreed to this overall approach; meaning to focus our efforts on three regional sites? After that in 5 to 10 years we can then tackle the concrete channel.

- Channelization is an imprecise science; so it makes sense to first tackle the three sites so we are not putting dirty water into a channelized river.

- Three to four regional high-leverage projects can be designed in multi-objective ways

- We should initiate a technical and feasibility study of the three sites, looking at environmental issues, political considerations, budget, construction costs, technical aspects and the scale of the projects. All of these sites are on publicly held lands, so we are just talking about different uses for this land.

- We should use an approach similar to what is being done to develop the San Gabriel River Master Plan – first look at all the possibilities and then zero in on a few sites. We can't lose sight of local solutions.

- All of the gravel quarries are privately owned. A feasibility study would need to look at what it would take to make the private owners financially whole.

- Do we really need a detailed feasibility study at this point, because we already know that these sites will work; we should move ahead with implementation as soon as possible.

- It is important for the Water Replenishment District (WRD) to identify priorities within these sites, especially at Whittier Narrows, one of the three regional sites under discussion. The WRD with the Army Corp of Engineers is developing a water conservation pool behind the Santa Fe Dam. Since it will enable us to save $1 million annually, we will be moving ahead with this in the coming year.

- We need your input now to integrate other projects and benefits into the design of the water conservation pool. So, this is a time-sensitive issue and we do not want to miss the boat on an implementation that is likely to be underway a year from now.

- The question is how can the water conservation pool project be modified to achieve these other benefits (habitat restoration, recreation, etc.)?

- Will you be able to collect trash before it gets to the water conservation pool?

- The cities of Monrovia, Sierra Madre, and Arcadia are working together on a device to screen out trash at the Peck Road Water Conservation Park. It is a prototype design that could be used on other Rio Hondo tributaries.

- The three key areas are important but do not lose sight of local scale opportunities, such as retrofitting parking lots, etc. Both regional and local solutions should be elements of the watershed plan.

- We will need to come up with a proportional distribution of funds for regional and local projects, especially if the local efforts complement and support the larger scale regional projects.

- If we go to the Regional Board with regional economically feasible options, then they might listen to this approach especially given the current public fiscal situation

- All of this sounds like a great idea, but it won't fly if we do not have buy-off from the regulators. We could succeed in cleaning up Whittier Narrows to the

nth degree but it is no good if the Regional Board says you still have to clean up everywhere in the watershed.

- This is a general approach discussed in lots of watersheds. The question is whether regional solutions will always work in large storm events? There is stuff happening upstream that may overwhelm regional projects downstream.

- From our work on the Arroyo Seco, we realized that watershed-wide solutions were required, because cities not even along the river corridor will impact the river with their long-term growth plans.

- We need to avoid a scattergun approach by focusing on regional solutions. But the question we have for the RMC is what happens to current projects?

- The watershed plan will help leverage more funding in coming years, plus we have more funding in coming years. Prop 40 funding requires that we balance water quality projects with other important goals.

- It will be important to strike a balance between larger regional projects and the smaller local ones that keep coming up before city councils and that require our attention. There is a need to integrate city planning with regional solutions.

- We need a regional projects sub-committee to explore these questions in more detail and to then report back to the full PAC at its next meeting. Volunteer members of the Regional Projects Sub-committee identified at this time include:
    - John Alderson, City of San Marino
    - Doug Benash, City of Monrovia
    - Mickey Chaudhuri, LA County Department of Public Works
    - Cathie Chavez, Rivers and Mountains Conservancy
    - Jim Donovan, National Park Service
    - Jeff Haltiner, PWA
    - David Jallo, LA County Parks and Recreation
    - Phyllis Trabold, US Army Corp of Engineers

- Peck Park Trash Collection in catch basins will comply with TMDLs in three years

- Is there any sympathy from the Regional Board for these ideas?

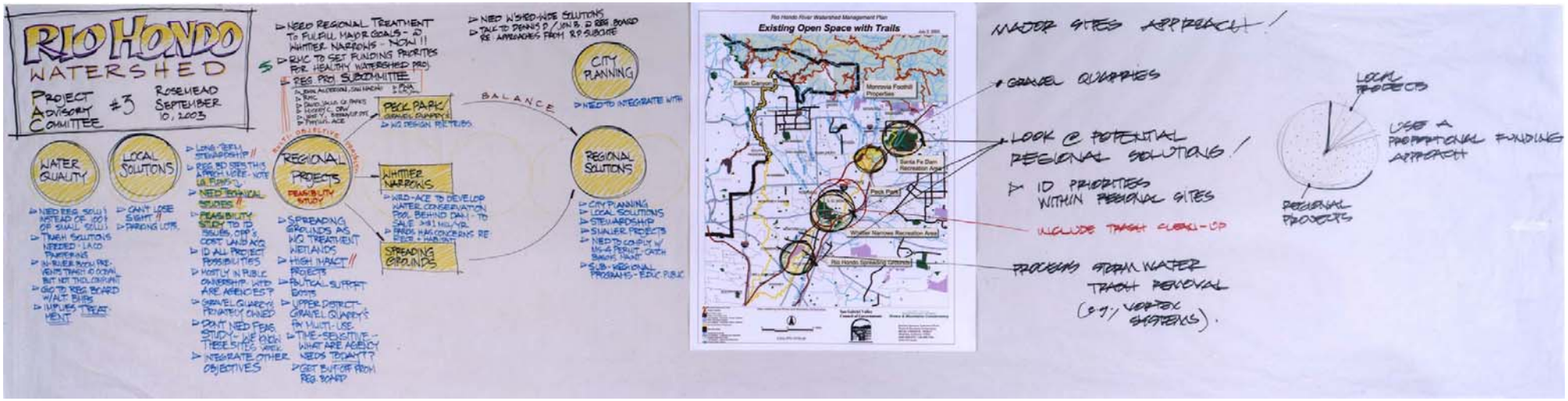
- Water quality as a goal implies treatment of stormwater

- We will need to send our proposal to the Regional Board, and then invite them to a roundtable discussion

- It is not one or the other – regional vs. local solutions – but a balance of both. We need to look at which catch basins need help; conduct an inventory, because we know that 90% of the trash comes out of only 10% of the basins. Once it is in the streams from those 10%, it then impacts the whole stream system.

- As we implement these new solutions, hopefully the old, historic problems will not recur. What is a “natural” clean area in Southern California as a reference? Horses and ducks may be encouraged but they can create their own set of problems.

- Important to think about long-term maintenance – perhaps support from youth conservation groups and other partnerships.


RIO HONDO
WATERSHED
PROJECT ADVISORY COMMITTEE #3
ROSEMEAD SEPTEMBER 10, 2003
WATER QUALITY
LOCAL SOLUTIONS
REGIONAL PROJECTS
FEASIBILITY STUDY
PECK PARK
WHITTIER NARROWS
SPREADING GROUNDS
CITY PLANNING
REGIONAL SOLUTIONS
BALANCE
Existing Open Space with Trails
MAJOR SITES APPROACH
GRAVEL QUARRIES
LOOK @ POTENTIAL REGIONAL SOLUTIONS
ID PRIORITIES WITHIN REGIONAL SITES
INCLUDE TRASH CLEAN-UP
PROGRAMS STORM WATER TRASH REMOVAL (E.G. VORTEX SYSTEMS).
LOCAL PROJECTS
USE A PROPORTIONAL FUNDING APPROACH
REGIONAL PROJECTS

Appendix J
Rio Hondo Watershed Management Plan

Regional Projects Subcommittee Meeting Summary

October 2, 2003 DRAFT

Los Angeles County Department of Public Works, Alhambra

1:00 pm – 3:00 pm

Attendees:
John Alderson, City of San Marino
Douglas Benash, City of Monrovia
Jeff Yann, Upper San Gabriel Municipal Water District
Nancy Matsumoto, Water Replenishment District
Bruce Mowry, Water Replenishment District
Cathie Chavez, Rivers and Mountains Conservancy
Mickey Chaudhuri, LA County Department of Public Works (DPW)
Phyllis Traböld, US Army Corps of Engineers
Jim Donovan, National Park Service Rivers Trails & Conservation Assistance Program
Erik Fonseca, Congresswoman Hilda Solis
Chi Mui, Senator Gloria Romero
Jeff Haltiner, Philip Williams & Associates
Amy Stewart, Philip Williams & Associates
Mark Sillings, Moore Iacofano Goltsman, Inc.
Eileen Takata, Moore Iacofano Goltsman, Inc.

I. Introductions & Purpose of Meeting

Mark Sillings gave an overview of the meeting which was to review issues and opportunities within three key regional project areas.

II. Overview of Regional Opportunities

The three regional project areas include:

(1) Peck Road Water Conservation Park
(2) Whittier Narrows Area
(3) Rio Hondo Spreading Grounds

Key Issues

There were several overarching key issues that were expressed at the opening of the meeting. Coordination among groups was a key message, as conflicting issues need to be addressed. An interest in continuing meeting regularly was expressed. There was a definite interest in the formation of site-specific subcommittee's to address concerns at a local level. One planning approach was to examine the watershed in subwatershed regions.

- Need coordination by stakeholders – agencies, non-profits – to achieve goals
- Flexibility by Regional Board to allow water movement through different jurisdictions

- Groundwater recharge may be in conflict with some other interests
- On-going structure to meet & coordinate (Project Advisory Committee, watershed council or projects subcommittee) is necessary
- Need structure – perhaps a semi-annual watershed stakeholder meeting
- Integrate efforts at project area
- Site specific – need to address jurisdictional constraints
- Make recommendations on who participates on these committee's
- Spin-off group to meet regarding Whittier Narrows
- Example of watershed planning approach – Ballona Creek Watershed is broken up into subwatersheds
- Identify potential projects per subwatershed

III. Program Elements Identification

Each of the three project areas are actually multiple projects in one area, ranging from simple entry improvements to trail loops to habitat and stream restoration projects. This meeting was an opportunity to examine both issues and opportunities at each site. Many exciting opportunities were identified. During the course of the meeting, it became apparent that continued discussions would need to occur for each of these project areas. There are conflicts that will take additional discussion for resolution to occur such as the need for habitat & trails versus the need to create a water conservation pool behind the Whittier Dam.

1. PECK ROAD WATER CONSERVATION PARK

Located in unincorporated Los Angeles County, Peck Road Water Conservation Park is nested between Monrovia, Irwindale, Arcadia, Temple City & El Monte. Los Angeles County Department of Parks & Recreation operates the county park while Public Works owns and operates the lake which serves as a recharge basin. A model BMP is to filter out trash is proposed by Monrovia.

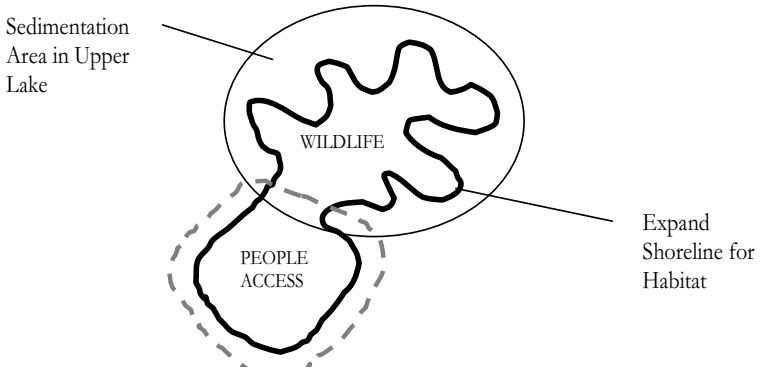
Key Issues

- The effectiveness of storm water treatment wetlands is in question
    - Conflict with habitat
    - Very land-intensive
- Lakes percolate through sides – bottom is silted
- Need buy-in from environmental groups
- Monrovia et al is proposing to install a trash capture Best Management Practice (BMP) at end of Santa Anita and Sawpit Washes
    - EPA funded
    - Adjacent to channel
    - Series of bar grates, ¼" capture floatables & other trash
    - Requires only about 15' of space
    - Storm water is diverted through BMP, comes out cleaner

Opportunities

- Potential enhancements to the park include:
    - Habitat restoration around the perimeter of the lake
    - Demonstrate water conservation technologies
    - Bike trail signage
    - Decorative gate
    - Trail loop

    - Improve entry
- The Upper San Gabriel Municipal Water District is interested in more groundwater capture
- Hanson Quarry just east of park is 460 acres and has potential urban runoff clean-up opportunity – tie in to park lakes
- Treatment wetland in lake (± 5 acres) is possible to treat water in lake
- Lakes offer some treatment themselves

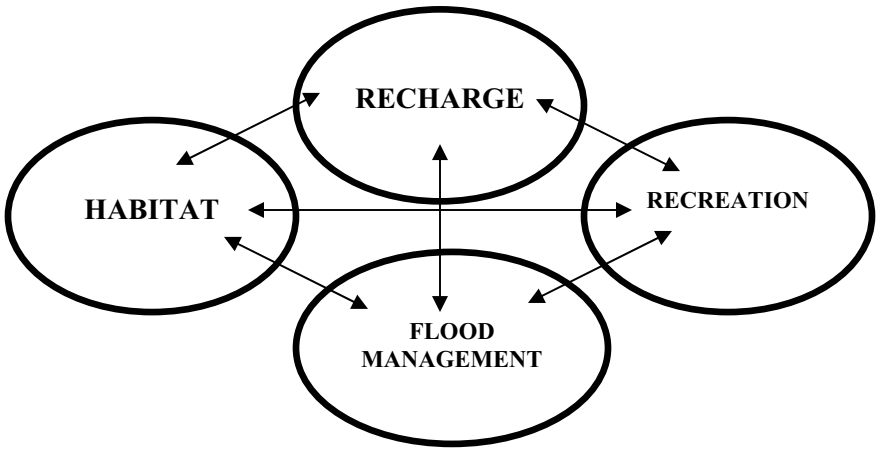


2. WHITTIER NARROWS

Whittier Narrows is defined by the Whittier Narrows Dam, holding back a large open space and recreation area between the San Gabriel River and the Rio Hondo at the 60 Freeway. Much of the area is part of the Whittier Narrows Recreation Area run by Parks & Recreation, although the land is owned by the US Army Corps as floodplain. Whittier Narrows Nature Center is a popular school and regional destination. The Whittier Narrows County Golf Course is on the west bank of the Rio Hondo.

Key Issues

- Challenge to achieve balance between recharge, recreation, habitat & flood management issues



- Proposed water conservation pool by the Water Replenishment District (WRD) to flood habitat and recreation areas for up to 2 weeks
- Oil company's are out of the area now
- WRD using 1998 ACE study as baseline

- Money and buy-in needs to occur for conservation pool to move forward

Opportunities
- Hollywood Beautification Team (HBT) to remove Arundo north of 60 Freeway and golf course
- Examine cross-section for Ele. 209 (from ACE Study) for recharge and habitat/recreation opportunities
- Identify critical and non-critical habitat areas
- Next steps for water conservation pool project implementation
    - Agree on habitat and recreational needs
    - RMC, LA County DPW & Parks, WRD, ACE, and others
- Alhambra wash (1,000-1,500 ft) concrete removal with 100 ft wide floodplain
- Pico Rivera Golf Course expansion behind dam
- Mission Creek is moving forward (RMC and Parks)
- Lario Creek/Zone 1 Ditch habitat restoration project is also moving forward (North East Trees, DPW)
- Site of original San Gabriel Mission – historic & cultural value
- La Fiesta property for sale
- Investigate upcoming TMDL's and appropriate BMP's

3. RIO HONDO SPREADING GROUNDS

The Rio Hondo Spreading Grounds are almost completely in the City of Pico Rivera, partly within Montebello and an "oxbow" shaped basin that straddles Bell Gardens and Downey to the south. There are 20 basins that cover 570 acres, owned and operated by the Los Angeles County Department of Public Works.

Key Issues
- No habitat creation within basin unless additional recharge area is found
- Upper areas more productive than lower areas
- 3-week cycle, 2 wet, 1 dry
- October 1 is the New Water Year

Opportunities
- Spreading grounds has great potential
    - Need to compensate for loss of recharge
- Pico Rivera got Proposition A funds for bike path improvements
- Parking lot at north is potential recharge area
    - 30 acres needs to be acquired
    - site is over very productive recharge area
- "Oxbow" spreading basin to the south as potential wetlands
    - southern basins not as productive for recharge as northern ones
- Montebello – west side, equestrian trail master plan from Whittier Narrows Dam to Spreading Grounds
- Gate upgrade
    - Potential opportunity to include trash screens

IV. Additional Project Opportunities

- Number of project opportunities throughout watershed
- Involve community to beautify rivers

- Trail access and connections
- Golf course improvements – take advantage of facility upgrade
- Slope stabilization and bike trail on top in Montebello
- Phased stream restoration
- Sediment management in upper watershed
- Eaton Wash – Water Replenishment District (WRD) to construct Metropolitan Water District (MWD) turn-outs
    - Possibility for demonstration project
    - Timeline within 12 months
    - Pipe and valve
    - 270 AF/day
- Little Arcadia wash stream restoration in golf course
- Utility easement opportunity
- Education centers
- Trash bars at bottom of all tributaries

V. Conclusion & Next Steps

We will report back to the entire Project Advisory Committee (PAC) at the next meeting, October 22, 2003. There is no follow-up meeting scheduled at this time. Communication will take place via email. Meeting adjourned at 3:00pm.

Appendix K
Rio Hondo Watershed Management Plan

Project Advisory Committee Meeting #4
Meeting Summary

October 22, 2003

MEETING OVERVIEW

The meeting began with a two-part Powerpoint presentation from Eileen Takata. The first part was a summary of results from the first meeting of the Regional Projects Sub-committee, detailing issues and opportunities at three proposed projects – Peck Road Water Conservation Park, Whittier Narrows, and Rio Hondo Spreading Grounds. The second part presented preliminary findings on water quality and habitat enhancement. The presentation was followed by an extensive discussion among PAC members facilitated by Daniel Iacofano. This discussion is summarized below. The meeting concluded with a presentation from LA County Department of Public Works on the current Rio Hondo Flood Control and Water Conservation System.

DISCUSSION SUMMARY

Much of the discussion focused on the three proposed multi-objective regional projects. Although there is a general consensus that these three sites should be core elements in the final plan, others observed these need to be adequately balanced by other local smaller scale-projects throughout the watershed. Coordination with the Regional Board remains a foremost concern, especially the need for a degree of regulatory flexibility. It was suggested that the regional projects sub-committee meet again to develop a more detailed menu of solutions, addressing the needs of the overall watershed, from which the PAC could more carefully assess and choose alternative approaches.

- Need to select our priorities and action plans as soon as possible.
- Will need to overcome regulatory hurdles, i.e. flexible regulations from the Regional Board that will allow storm water to be treated in a more regional, consolidated and cost-efficient, common sense-way vs. all gutters as waters of U.S.
- Prioritize the 3 major target areas (Peck Park, Whittier Narrows, and Spreading Grounds) as 1st phase of multi-decade project (restoration of natural streambed a long term goal)
    - All the different groups that have something planned in these three areas need to talk and coordinate with each other to avoid unnecessary conflicts/potential overlaps; opportunity to develop an

integrated, multi-objective approach at each of these three regional sites.
    - RMC vote will enable us to leverage dollars; collectively identify priority projects, and coordinate effort with Regional Board (preceded by some communications that this is a valid path)
    - Perceived strength if we present an alliance of both environmentalists and brick and mortar groups.
- These three project sites on everyone's radar for some time, but do not lose sight of more local projects; these need to be addressed in the Plan, especially so cities can see similar opportunities within their jurisdictions
- Write-up our proposed projects in contexts of our collective strategy/solution; test with Regional Board; include both short and long-range solutions; funding and priorities.
    - Regional Projects Sub-committee needs to meet again to brainstorm proposal to take to the Regional Board
    - May need to give the Regional Board something in return for accepting this approach, such as concrete removal along Alhambra Wash
- We need to concentrate on what makes sense; the final document will have to be what everyone agrees to.
    - Will need to stimulate more examples; MIG as clearinghouse
    - Develop a menu of project options/alternatives/solutions catalog – concept characteristic, cost, timeframe, priority, rate as L, M, S
- Will need a definitive concept for the 3 sites and Regional Board saying it will be ok for trash to come down the channel to these 3 points.
- Need to consider all the options before we start throwing them out
- May need a model that brings together bricks and mortar perspective with that of the environmentalists – i.e. produce a wide range of options that get us the flexibility we need for approval from the regulators.

OTHER ISSUES

- Clarify water access
- Compatibility of bike and equestrian trails;
    - County Parks and Recreation trail maintenance budget cut;
    - need to look at how best to accommodate all users
- Need strategy; native plantings along concrete channels – do not vegetate top of levee if later you are going to tear out the channel.
    - Plant/vegetation dilemmas – native plants (not good looking) but provide important habitat, versus non-native/ornamental (good looking plants), versus drought tolerant (which are not necessarily native plants)
- Equestrian trails, especially if along soft-bottom of river; a fecal source
- Role of wetlands for stormwater treatment- latest information suggests that wetland construction near the river will not be allowed; also would preclude future river restoration; wetlands preferred in upland areas away from the river

    - Large scale wetlands may not be as effective as many smaller ones scattered throughout the watershed
    - But many small wetlands throughout the watershed will not be supported by the community
    - The Plan will need to focus on solid solutions; we do not want to be too far out on the leading edge
- Semantics – language structures reality, so a “concrete channel” should not be labeled as being “improved”

Appendix L
Rio Hondo Watershed Management Plan

Public Forum

November 20, 2003

Garvey Community Center, Rosemead

7:00 pm – 9:00 pm

Attendees:
Barbara Andrews, Downey resident
Jerry Andrews, Downey resident
Suzanne Avila, Think River Educational Program
Kimberly Bahnsen, Pasadena resident
Cathie Chavez, Rivers and Mountains Conservancy
Mickey Chaudhuri, LA County Department of Public Works (DPW)
Grace Eng, San Gabriel Valley Council of Governments
Belinda Faustinos, Rivers and Mountains Conservancy
Ed Flores, Pasadena resident
Gerry Greene, City of Downey
Rick Harter, Los Angeles and San Gabriel Watershed Council
Mike Hughes, Hacienda Heights Improvement Association
Daniel Iacofano, Moore Iacofano Goltsman, Inc.
David Jallo, LA County Parks and Recreation
Cindy G Rowlan, LA County Department of Public Works
Mark Sillings, Moore Iacofano Goltsman, Inc.
Nate Springer, Amigos de los Rios
Eileen Takata, Moore Iacofano Goltsman, Inc.
Rick Thomas, San Gabriel Mountains Regional Conservancy
Suzanne Turney, City of Arcadia

Exhibitors:
LA County Department of Public Works
Rivers and Mountains Conservancy
San Gabriel Mountains Regional Conservancy (Think River)
Whittier Narrows Nature Center

Meeting Purpose and Overview

The primary purpose of the Public Forum was to present the project and solicit public feedback and discussion regarding the proposed Plan. The meeting began with a presentation from Daniel Iacofano of MIG, during which he provided an overview of the project and then presented initial findings and recommendations. This was followed by an extensive discussion and feedback session, facilitated by Mr. Iacofano.

Project Overview Highlights

- A watershed management plan requires thinking in terms of watershed boundaries instead of just political boundaries; effective watershed management requires working with neighboring cities

- Geographic Information Systems (GIS) is being used to develop a series of spatial analysis maps of the watershed; enables a better understanding of the opportunities and constraints that are present in the watershed; these maps are on display for your review and comment

- A project advisory committee (PAC) representing cities in the watershed, other public agencies, water agencies, non-profit environmental groups and other organizations/stakeholders with an interest in the watershed, has been meeting on a regular basis to guide the watershed plan development process. The final Plan cannot be approved until the PAC agrees to it.

- Improving water quality has been a major consideration in the development of the watershed plan; need to deal effectively with sources of water pollution that are hard to identify (non-point source pollution)

- Conceiving of the watershed as a managed system; one where it is essential that flood control and existing water rights are maintained while also achieving other important beneficial goals such as recreation, habitat, open space, etc. Development of the watershed plan is a multi-goal/multi-objective process.

Public Discussion and Feedback

Flood Control

- The potential to pursue naturalization of the Rio Hondo river channel was discussed. Questions raised during the discussion included:
  - Is it a practical goal worth pursuing?
  - What amount of funding is required and what are the potential funding sources?
  - Is there a sufficient amount of undeveloped space next to the river?
  - Does the political will exist to make this happen?

- Examples of river naturalization projects from around the country were cited. It was pointed out that complete naturalization of rivers in Los Angeles is a much bigger challenge here than elsewhere in the country. The potential for high intensity and high velocity stormwater flows is much greater. However, a few selected opportunities to tear down or terrace river channels do exist, such as along Alhambra Wash and Arcadia Wash. The latter runs next to a golf course that can be integrated into a renaturalized river channel.

- One participant questioned the wisdom of removing concrete river channels, especially as he lives near the LA River and Rio Hondo where they recently completed significant efforts to raise the sides of the channel and levees. This effort was required to address flood insurance. It was again explained that removing concrete flood control channels can only be done at a few select locations; all such efforts have to be analyzed carefully to make sure they can handle a 100-year flood event.

- Another participant pointed out that there are other advantages to removing some of the concrete channel. With too much concrete, stormwater flows much too quickly through the channel. By taking some concrete out, allows for water percolation, which expands the local water supply. This is an important advantage especially in coming years as the imported water supply is gradually reduced.

- It was pointed out that most major rivers around the world have been channelized but as a result we have had some of the worst flooding in history. Also, concrete has only a useful life of 20 to 50 years.

Water Quality

- How does the watershed plan fit in with the Federal Clean Water Act, including keeping trash from the rivers out of the ocean? Wouldn't new plants growing along the river's edge simply end up in the ocean after a good rainstorm?
    - Trees are not classified as trash.
    - Vegetation management is an ongoing management problem; vegetation removal follows a regular maintenance schedule to make sure floating vegetation does not create dams during storm events. Increasing vegetation for habitat must be balanced with flood control considerations.

- Storm water regulatory issue is a big challenge for local cities. How to use our tax base dollars correctly to deal with this issue? By supporting the sub-regional projects being considered for this Plan?
    - Advantage – biggest bang for our buck, as opposed to separate isolated efforts on the part of each city.

- It is never going to be just one solution. Instead, a multiplicity of approaches will be required.

- Current rules do not support inter-jurisdictional projects that collect/trap trash at certain strategic points as proposed by the Peck Road Water Conservation Project. Instead, require that trash be collected at all points in the watershed in upstream locations; very tough standards + eventually mandating zero trash in tributaries and rivers.

- Important that we get out of the courtroom so we can make real progress by working together on common goals; the clean-up process will work much better without a regulatory deadline.

- Important that we coordinate with the Regional Board; will need to give the Regional Board something in return for accepting our inter-jurisdictional approach.

Plan Development and Project Funding

- Package short and long term solutions and prioritize funding.
    - Brainstorm concepts to take to Regional Board.
    - Develop a menu of project options, with cost, timeframe and priorities outlined
    - Do not overlook smaller, short term projects
    - Develop a long term funding strategy

- It was pointed out that projects written into a watershed management plan are more likely to be funded, than if they are single, stand-alone efforts.
    - So, one of the goals of the watershed plan development effort is to identify and catalog all existing and proposed projects that fit the vision and goals of the watershed plan.
    - We can more effectively leverage funding for the Rio Hondo if all the jurisdictions and stakeholders in the watershed pull together to support multi-benefit projects

- Total cost includes not just capital costs but also operational and maintenance costs

Build Public Support and Awareness

- Solicit volunteers for labor and public support; river and watershed cleanup efforts; create connections to the river that enhance awareness of the river and watershed; better signage.

- Encourage people to see the river and watershed as a recreational resources instead of having to travel to the beach and the mountains

- Give the river an identity; create a Rio Hondo brand

- Cited the community center in which the public forum was taking place as a missed opportunity; there is no design connection between the community center and the Rio Hondo River even though it lies directly adjacent to the river; at the very least the center should have been designed to face toward the river.

- Los Angeles River as a model for what could be done in the Rio Hondo – media events, support from Hollywood actors and other celebrities, river walks and runs.

- The Rio Hondo is less industrial than the LA River; the Rio Hondo still has capacity to become a neighborhood asset; need to look at what the river can provide each community; what works in Cerritos may not work in Pico Rivera.

Other Proposed Actions

- Create a master vision for all open space areas; remove all impervious surface parking lots and replace with pervious concrete that allows water to percolate into the ground soil; cited Cerritos parking lot as example.

- Focus on trail development along river and tributaries as a project; both bike and equestrian trails;
    - Need to consider trail maintenance funds; LA County trail maintenance funding has been cut
    - Invite trail coordinator for LA County to next PAC meeting
    - Recognize that equestrian trails are a fecal source that impacts water quality

- Be strategic in Plan implementation; for example do not plant vegetation along river channels if river restoration is planned for that location in the future

- Wetlands are best situated in upland areas away from the river

    - Need smaller wetlands throughout the watershed; that is far more effective than a few large wetlands

- Peter's Canyon Reservoir cited as a good model for habitat restoration

- Ann Reilly's approach to stream restoration is another good model to refer to.

Appendix M
Rio Hondo Watershed Management Plan

Solutions Subcommittee Meeting Summary

December 2, 2003

Los Angeles County Department of Public Works, Alhambra

1:00 pm – 3:00 pm

Attendees:
John Alderson, City of San Marino
Kathy Avina, LA County Parks and Recreation
Louis Celaya, City of Arcadia (for Douglas Benash, City of Monrovia)
Mickey Chaudhuri, LA County Department of Public Works (DPW)
Cathie Chavez, Rivers and Mountains Conservancy
Jim Donovan, National Park Service Rivers Trails & Conservation Assistance Program
Belinda Faustinos, Rivers and Mountains Conservancy
Erik Fonseca, Congresswoman Hilda Solis
Gerry Greene, City of Downey
Daniel Iacofano, Moore Iacofano Goltsman, Inc.
David Jallo, LA County Parks and Recreation
Mickey Long, LA County Parks and Recreation
Barbara Park, Senator Jack Scott
Mark Sillings, Moore Iacofano Goltsman, Inc.
Amy Stewart, Philip Williams & Associates
Tom Tait, City of Arcadia
Eileen Takata, Moore Iacofano Goltsman, Inc.
Phyllis Traböld, US Army Corps of Engineers
Rob Welch, LA County Parks and Recreation
Jeff Yann, Upper San Gabriel Municipal Water District

I. Introductions & Purpose of Meeting

To examine more closely the three priority sites previously identified by the subcommittee and to develop a more detailed menu of solutions, addressing the needs of the overall watershed.

II. Watershed Project and Program Priorities

- Eileen Takata began the discussion by providing a re-cap overview of the three regional projects previously identified:
  (1) Peck Road Water Conservation Park
  (2) Whittier Narrows Area
  (3) Rio Hondo Spreading Grounds

- The initial discussion then focused on determining the right balance between high-leverage, regional scale, inter-jurisdictional projects and local level, local jurisdictional projects. It was determined that the proper balance would have two-thirds of watershed funding directed toward the inter-jurisdictional projects, and one-third toward local jurisdictional projects.

- It was suggested that (1) detailed planning area maps for each of the three sites are needed, and (2) sub-watershed maps to locate the sites of all local jurisdictional projects.

- Two additional multi-jurisdictional projects were proposed:
  (4) Montebello Hills – an opportunity to preserve open space + recreational benefits
  (5) Monrovia Open Space Protection – contributes to watershed health

- Cities may have difficulty seeing the upland areas as a priority, but represents an inclusive, strategic element of the watershed management plan that can facilitate resource generation; a multi-objective planning system can provide more funding options.

- Other priorities include:
  - Arundo removal – an important priority activity where it is possible to enhance the habitat value of existing non-developed areas
  - Attempting to expand habitat in already developed areas was considered too difficult to be a priority; better to enhance the natural areas we already have.

- Arcadia, Monrovia, and San Marino need support for their proposed trash BMP at Peck Road Conservation Park
  - Peck Park seen as prototype demonstration project; an inter-jurisdictional project with regional benefits throughout the watershed that could encourage a relaxation of water quality rules by the Regional Board

- The final Plan should also include all existing city-level projects, both current and proposed.

III. Organizational and Funding Strategies

- A self-assessment district was seen as the best way to work together as a region. It would provide a single management structure for funding and implementation of projects throughout the watershed, especially the high leverage, inter-jurisdictional projects.

- A two-thirds vote of all property owners in proposed self-assessment district would be required.

- Other funding options discussed include real estate parcel tax (requires 50% vote in favor); a ¼ cent sales tax

- Given the current financial status of the State, these organizational and funding options should be considered as part of a long-term financial strategy.

- Funding for ongoing operations and maintenance has be addressed early on

- A local assessment district provides added leverage for state and federal funding; increases competitiveness

- A strategic framework of individual projects shared by neighboring cities will generate greater support

- Will need to develop a process to track watershed health on an ongoing basis; need a data collection and analysis protocol to ensure credible and useful information is available; a crucial component of the governance process.

- Other organizational/funding options –
  - Adhoc cooperation between cities to fund regional capital projects
  - MOU between cities; prorate share of regional funding
  - The formation of a joint powers authority can then work toward creation of an assessment district; act when economy and timing is right; need governance structure in place before an assessment district or other similar funding mechanism can be seriously considered.

- JPA provides a more consolidated approach for project and funding implementation; especially if JPA adopts certain standards (BMPs) that cities must adopt as their own before they can join the JPA. Raises the level of the lowest performing cities; plus creates additional incentives that benefit the overall watershed
  - Work through BMP checklist

- The federal property in the Whittier Narrows might create complications for formation of a JPA, but a cooperative agreement or MOU might be a solution.

Next Steps
- Prepare maps of major project areas
- Prepare maps of sub-watershed areas showing detailed projects
- Write up governance and funding options
- Assist cities and LADPW with Peck Road project – go to COG, Sierra Club, and RMC for endorsements.

APPENDIX N
STAKEHOLDER ORGANIZATIONS INVITED TO PARITIPATE IN THE PROJECT ADVISORY COMMITTEE

Federal Agencies

US Army Corps of Engineers
US Forest Service
US National Park Service

State Agencies

Regional Water Quality Control Board
Rivers and Mountains Conservancy
Dept. of Toxic Substances Control
Dept. of Health Services
CA Coastal Conservancy
Wildlife Conservation Board

County/Regional Groups

LA County Public Works
Southern California Association of Governments
Whittier Narrows Nature Center
San Gabriel Valley Council of Governments
Gateway Cities Council of Governments

Local Governments

City of South Gate
City of Bell Gardens
City of Downey
City of Pico Rivera
City of Commerce
City of Montebello
City of Monterey Park
City of Rosemead
City of South El Monte
City of Alhambra
City of San Gabriel
City of Temple City
City of El Monte
City of San Marino
City of Pasadena
City of Sierra Madre
City of Arcadia
City of Monrovia
City of Bradbury
City of Duarte
City of Irwindale
City of South Pasadena

Water Agencies

Main San Gabriel Basin Watermaster
Water Replenishment District
Upper San Gabriel Valley Municipal Water District
San Gabriel Valley Water Association
Central Basin Water Association

Non-Profit Groups

Los Angeles and San Gabriel Rivers Watershed Council
Southern California Land Use and Transportation Coalition
San Gabriel Mountains Regional Conservancy
Altadena Foothills Conservancy
Sierra Madre Mountains Conservancy
Foothill Wildlife Conservancy
Monrovia Mountain Conservancy
Sierra Club
The River Project
San Gabriel Valley Economic Partnership
Chambers of Commerce
Building Industries of America

Elected Officials

US Congress

Adam Schiff
David Dreier
Hilda Solis
Lucille Roybal-Allard
Grace F. Napolitano
Steve Horn

State Senate

Jack Scott
Bob Margett
Gloria Romero
Martha M. Escutia
Betty Karnette

State Assembly

Carol Liu
Dennis Lee Mountjoy
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